

City of Charlottesville, VA

---

DOWNTOWN AND UNIVERSITY CORNER

# COMPREHENSIVE PARKING ANALYSIS



## TABLE OF CONTENTS

	Page
<b>OVERVIEW.....</b>	<b>5</b>
Context and Purpose .....	5
Summary of Needs and Recommendations.....	6
<b>METHODOLOGY.....</b>	<b>9</b>
Study Area.....	9
Data Collection.....	12
<b>PARKING SUPPLY.....</b>	<b>13</b>
Downtown Parking Inventory.....	13
University Corner On-street Parking Inventory.....	18
Bicycle Parking Inventory .....	19
On-Street Parking Restriction Glossary.....	19
<b>PARKING DEMAND.....</b>	<b>21</b>
Summary of Demand .....	21
Off-Street Parking Utilization .....	24
Zone Summaries.....	26
Parking Violations.....	45
<b>STAKEHOLDER SURVEYS.....</b>	<b>48</b>
General Public Parking Survey.....	48
Workforce Parking Survey.....	52
Business Owner Parking Survey.....	55
<b>PARKING and TDM RECOMMENDATIONS.....</b>	<b>60</b>
Optimize Resources .....	60
Offer Viable and Attractive Commute and access Alternatives.....	68
Maintain (and monitor) Current Parking Supply.....	70
Special Project Area Recommendations.....	71

## TABLE OF FIGURES

	<b>Page</b>
Figure 1	Downtown Study Area..... 10
Figure 2	University Corner Study Area ..... 11
Figure 3	Total Parking Inventory – Downtown Study Area..... 13
Figure 4	Public Parking Inventory – Downtown Study Area ..... 14
Figure 5	Downtown Study Area Parking Inventory..... 16
Figure 6	Downtown On-Street Parking Overview..... 17
Figure 7	On-Street Parking Inventory – University Study Area ..... 18
Figure 8	University Corner Study Area Parking Inventory ..... 18
Figure 9	Downtown Parking Demand 9 AM..... 22
Figure 10	Downtown Parking Demand 1 PM ..... 22
Figure 11	Downtown Parking Demand 6 PM ..... 22
Figure 12	University Parking Demand 9 AM..... 23
Figure 13	University Parking Demand 1 PM ..... 23
Figure 14	University Parking Demand 6 PM ..... 23
Figure 15	Market Street Garage ..... 24
Figure 16	Water Street Parking Garage..... 25
Figure 17	Downtown Cultural Zone Weekday Utilization Table..... 28
Figure 18	Downtown Cultural Zone Weekday Turnover Table ..... 28
Figure 19	Downtown Cultural Zone Saturday Utilization Table ..... 30
Figure 20	Downtown Cultural Zone Saturday Turnover Table..... 30
Figure 21	Downtown Government Zone Weekday Utilization Table ..... 32
Figure 22	Downtown Government Zone Weekday Turnover Table..... 32
Figure 23	Downtown Government Zone Saturday Utilization Table ..... 33
Figure 24	Downtown Government Zone Saturday Turnover Table ..... 34
Figure 25	Downtown Market Zone Weekday Utilization Table..... 35
Figure 26	Downtown Market Zone Weekday Turnover Table ..... 36
Figure 27	Downtown Market Zone Saturday Utilization Table ..... 37
Figure 28	Downtown Market Zone Saturday Turnover Table..... 37
Figure 29	Downtown Southeast Zone Weekday Utilization Table ..... 39
Figure 30	Downtown Southeast Zone Weekday Turnover Table..... 40
Figure 31	Downtown Southeast Zone Saturday Utilization Table..... 41
Figure 32	Downtown Southeast Zone Saturday Turnover Table ..... 41
Figure 33	University Zone Weekday Utilization Table ..... 43
Figure 34	University Zone Weekday Turnover Table ..... 43
Figure 35	University Zone Saturday Utilization Table..... 44
Figure 36	University Zone Saturday Turnover Table ..... 45
Figure 37	Parking Violation January - March 2015..... 45
Figure 38	Downtown Parking Violations by Zone (January to March 2015) ..... 46
Figure 39	University Corner Parking Violations (January to March 2015)..... 47
Figure 40	Home Zip Code of Survey Respondents ..... 49
Figure 41	General Public Length of Time to Find Parking ..... 50
Figure 42	General Public Maximum Willingness to Pay ..... 51

**CHARLOTTESVILLE PARKING ANALYSIS FINAL REPORT**  
City of Charlottesville

Figure 43	Home Zip Code of Downtown Employees Surveyed.....	52
Figure 44	Workforce Commute Mode Share .....	53
Figure 45	Survey Response by Type of Business.....	55
Figure 46	Busy or Very Busy Downtown Business Hours.....	56
Figure 47	Employer Suggestions to Improve Employee Parking .....	57
Figure 48	Employer Perceptions of Customer Parking Concerns.....	58
Figure 49	Critical Parking Factors for Customers .....	59
Figure 50	Average Downtown Parking Duration.....	62
Figure 51	Average University Corner Parking Duration .....	63
Figure 52	Average Daily Utilization Rates of Parking Regulations.....	64
Figure 53	SFPark Mobile App.....	65
Figure 54	Zone Definition (2008 Report).....	66
Figure 55	Courthouse Parking Profile .....	71



# OVERVIEW

## CONTEXT AND PURPOSE

The City of Charlottesville completed a Downtown Parking Study in 2008, which examined the adequacy of parking availability, the existing designation and allocation of parking spaces, and strategies for parking management. The study made four broad recommendations:

- Simplify parking management to reflect three broad areas of unique demand patterns: the Core Zone immediately abutting the pedestrian mall which should be prioritized for loading, ADA access, and very short term parking; the Inner Zone encircling the Core that should be prioritized for visitors and short term parkers; and the Outer Zone to accommodate longer duration parking needs.
- Create a City Parking Department to more holistically manage parking.
- Replace the Parking Exempt Zone (PEZ) with minimum parking requirements and/or an in lieu payment option in order to ensure new development would not overwhelm existing supply.
- Encourage employers to participate in transportation demand management strategies and explore the creation of a parking benefit district.

Although some of the recommendations of the 2008 study have been implemented – most notably the tailoring of curbside regulations to reflect the diverse zones and the restoration of parking minimums - public parking remains an issue in downtown Charlottesville. In fact, the 2014 National Citizen Survey Community Livability Report for Charlottesville recorded that 24 percent of respondents consider traffic, parking, and public transportation to be the single biggest issue facing the community. Public parking received only a 21 percent approval rating in that same report.<sup>1</sup>

The purpose of this study was to update and reassess the recommendations of the 2008 study and recommend a course of action to improve parking and access to support a vibrant and vital downtown for the diverse range of workers, visitors, and patrons in the city. The study was a data-

---

<sup>1</sup> Community Livability Report for Charlottesville, Virginia (The National Citizen Survey, 2014)



driven process to identify opportunities for change, innovative alternative management, and pathways to accommodate existing development and future growth. The findings of this effort, in tandem with those produced by the 2014 West Main Street Parking Opportunities and Analysis, yield a complete picture of parking conditions and opportunities along the entirety of Charlottesville's major commercial, educational, and mobility core.

The following report, focusing on both the historic downtown and university-adjacent neighborhoods, reviews existing parking supply and demand, analyzes key trends, addresses stakeholder issues, presents parking policy and demand management options, and makes specific recommendations for action in the short- and long-term.

## **SUMMARY OF NEEDS AND RECOMMENDATIONS**

The study team gathered information from a variety of sources in order to identify the underlying needs facing Charlottesville that parking management must seek to address:

- Parking and access for downtown workers. Many downtown employees drive to work and many of them cannot afford the price to park daily in one of the off street facilities. A significant portion of downtown workers can and would commute via an alternate mode **if** it were convenient and compelling to do so. When they must drive and park, however, workers need affordable accommodation that does not require the “2-hour shuffle.”
- Available parking for commercial patrons. Charlottesville is a destination. Continued strength of the commercial establishments and entertainment venues means that parking must be easy to access, reliably available, and convenient to use for visitors and patrons.
- Accommodation of court functions. As a municipality and county seat, Charlottesville sees a dramatic rise in parking demand on court days. Charlottesville must have ready solutions to address court needs to efficiently serve this judiciary function.
- Maintenance of neighborhood quality of life. Charlottesville is a living downtown. Residents live above and adjacent to shops and commercial destinations. While strong commercial support is required, parking management must also be cognizant of neighborhood quality of life and minimize spill over parking pressures.
- Access and circulation. Parking is only part of the downtown picture. Curbsides are also needed to drop off patrons, students or other passengers; short term loading and deliveries; and efficient circulation in the downtown that minimizes congestion and other negative environmental, economic and community effects.
- Accommodation of growth and change. Charlottesville is fortunate to remain a growing economy. However, in some instances, growth means the conversion of existing parking resources. The city must plan to manage and meet parking, access and circulation demand that accompanies this new growth and adapts to changing resource supply.
- Efficient and coordinated management of resources. Charlottesville must optimize resources to make parking and access convenient, efficient and understandable.

After thoroughly reviewing available data and gaining insight from a diversity of users and stakeholders, the study team recommends the following summarized actions to address the above stated needs. These can generally be grouped into three broad strategies:

## **Optimize existing resources**

At present the city is not optimizing the parking resources that it has. This creates a somewhat artificial sense of parking shortage. While some parking resources are over-subscribed, others demonstrate available capacity that could be better used.

1. **Establish a City Parking Department.** As in 2008, a City Parking Department remains necessary in order to more holistically and responsively manage parking to the benefit of businesses, visitors, and residents.
2. **Adopt demand-responsive management for both on- and off-street parking resources.** Demand is different and uneven throughout the downtown. There are demands for short term and long term parking that are currently not well matched to the resources. In general, on-street parking is the best resource to serve short term parking needs while off-street parking is better suited to longer-term parkers. Pricing structures help to sort users to the optimal resource. Recommended demand responsive strategies are to:
  - a. **Meter the Highest Demand On-Street Parking.** This generally applies to the core of the downtown and main commercial corridor of University Corner.
  - b. **Right-size Off-Street Parking Fees.** In general, on-street parking is more desirable than off-street parking thus demand responsive pricing would indicate that off-street parking fees should be lower than on-street rates.
  - c. **Maintain some free parking.** Several areas of downtown have comparatively low demand for parking and should, at present, remain a free parking resource.
3. **Revisit Regulations.** Consider removing or relieving time limits on parking, especially in areas where meters will be adopted. Align times and durations of regulations with periods of demand. Re-examine areas of special reservation of curbsides for where these uses can be better served in off street locations or through new management strategies.
4. **Make Parking Easy.** Utilize available parking technologies to make parking easy including finding available spaces, extending time remotely, and permitting payment via a variety of mechanisms.
5. **Improve and equalize enforcement.** Management strategies, and the establishment of a new department, should facilitate enforcement across all zones.
6. **Create Parking Benefit District(s).** Similar to recommendations from 2008, parking revenues should be dedicated to one or more parking benefit districts to support parking facilities and management, arrange shared parking, improve information, and implement transportation demand management.

## **Offer Viable and Attractive Commute and Access Alternatives**

Most people make rational choices in how they travel. If driving and parking is cheap and convenient and other modes of travel cost more in both time and money, people will generally choose to drive even when other viable options are available. People generally respond positively to “carrots.” Transportation Demand Management offers information and incentives that help make alternatives to driving and parking rational choices for users.

7. **Design and Implement a Transportation Demand Management Program / establish a Transportation Management Association.** Transportation demand management programs provide support and incentives to enable and encourage arrival

downtown by means other than single occupancy vehicles. These options provide relief to stresses on the parking system and serve employers, employees, and visitors alike. Transportation management associations help to develop, promote, and tailor such services to the downtown and University Corner audience. The Parking Department could, more broadly, be referred to as a “Mobility” Department to ensure that promotion of a broad range of access to the downtown and across the city were also part of the charge of this new department.

- 8. Enable, promote, and encourage the continued expansion of alternative mobility options.** As each new mobility options appears, the set of methods employed to slow or reverse parking demand becomes larger. These may include the addition of low-stress bicycle facilities and adequate bicycle parking, enhanced transit operations and services, bicycle and car sharing systems, and other similar services.

## **Maintain Supply**

Better management of existing on and off street parking resources will significantly reduce the parking pressures and better match users to the resource best suited to their needs. Strong promotion of TDM efforts and continued enhancement of alternative travel options will serve Charlottesville well in maintaining its reputation and charm as an attractive, livable and sustainable city. But demand for parking will remain. As a small and growing city in a relatively rural region, access by automobile will continue to be an important mode of access. Current parking levels should be maintained, but continuously monitored and evaluated.

- 9. Maintain existing parking requirements for new development.** With the elimination of the parking exempt zone, new developments will largely meet their own new parking demands; therefore future parking demand is not anticipated to outpace added supply. Similarly the current “in lieu” payment option should remain for those properties unable to provide parking on site or desiring to participate in a shared arrangement.
- 10. Strategically expand where opportunities present themselves**
- a. **Partner in parking replacement or enhancement.** The city is growing. As development occurs the city will see a temporary, and in some cases permanent, reduction in the number of public or employee parking spaces in the downtown. The city should partner with private owners to optimize opportunities to replace this parking supply and where prudent, enhance it.
  - b. **Engage in shared parking arrangements.** As was observed in 2008, there are surplus off-street parking spaces downtown, however many of these empty spaces are not available to the general public. Shared parking arrangements to make use of existing underutilized spaces can help address unmet parking demand.
  - c. **Participate in development.** As new developments occur downtown, the city may wish to partner with developments to integrate new public parking spaces into development projects to replace lost parking or sensitively augment supply and better distributing parking options throughout the downtown. The need for additional supply should be judiciously monitored and can only be correctly evaluated after effective parking and demand management programs have been implemented.





# METHODOLOGY

## STUDY AREA

The study area concentrated on Downtown and University Corner (The Corner). Downtown encompasses a roughly 60 block area generally bounded by High Street, 6<sup>th</sup> and 9<sup>th</sup> streets, Monticello Avenue, and Ridge McIntire Road (Figure 1). University Corner includes roughly 20 blocks bounded by Virginia Avenue, 14<sup>th</sup> Street, Wertland Street, 10<sup>th</sup> Street NW, West Main Street, and Chancellor Street (Figure 2). The West Main Street corridor, studied in 2014, bridges the two areas.

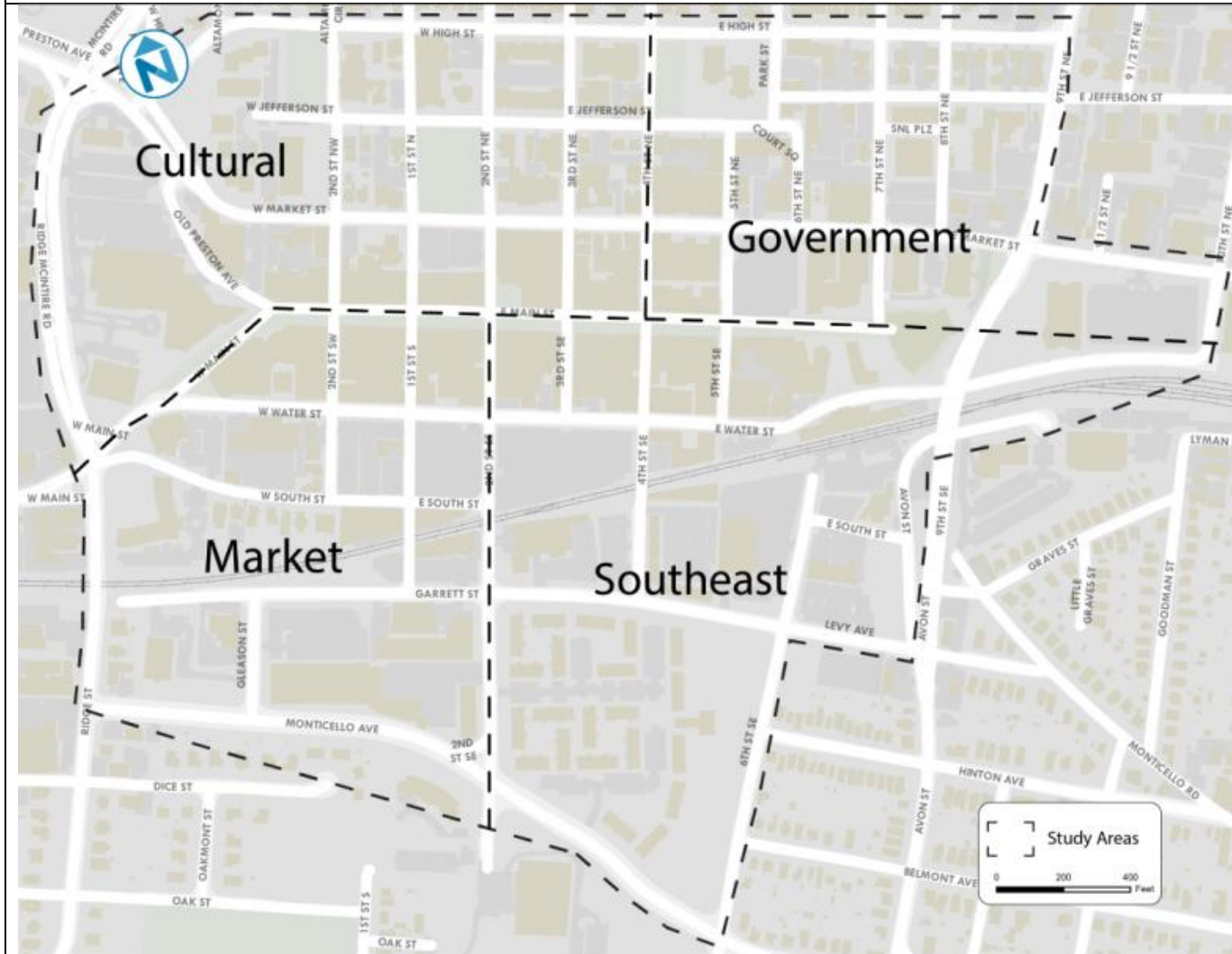
For the purposes of this analysis, the Downtown study area was subdivided into four study zones, each with unique on-street supply and demand characteristics:

- Cultural Zone
  - Containing the Paramount Theater, the Jefferson-Madison Regional Library, the McGuffey Art Center, and public parks
  - North of the Main Street Pedestrian Mall and west of 4<sup>th</sup> Street NE
- Government Zone
  - Containing City Hall, the Albemarle County Circuit Court, and Sheriff's Office
  - North of Main Street and east of 4<sup>th</sup> Street NE
- Market Zone
  - Containing Charlottesville City Market and the Main Street Arena Event Center
  - South of Main Street and west of 2<sup>nd</sup> Street SE
- Southeast Zone
  - South of Main Street and east of 2<sup>nd</sup> Street SE

The Downtown study area is co-terminus with the 2008 study area to enable crosswise comparison between data and findings. It includes the city's largest concentration of office, municipal service, dining and retail uses, in addition to a fair concentration of downtown residences. The University Corner area primarily consists of University-oriented commercial uses and a significant amount of residential units, many occupied by students and other university affiliates.

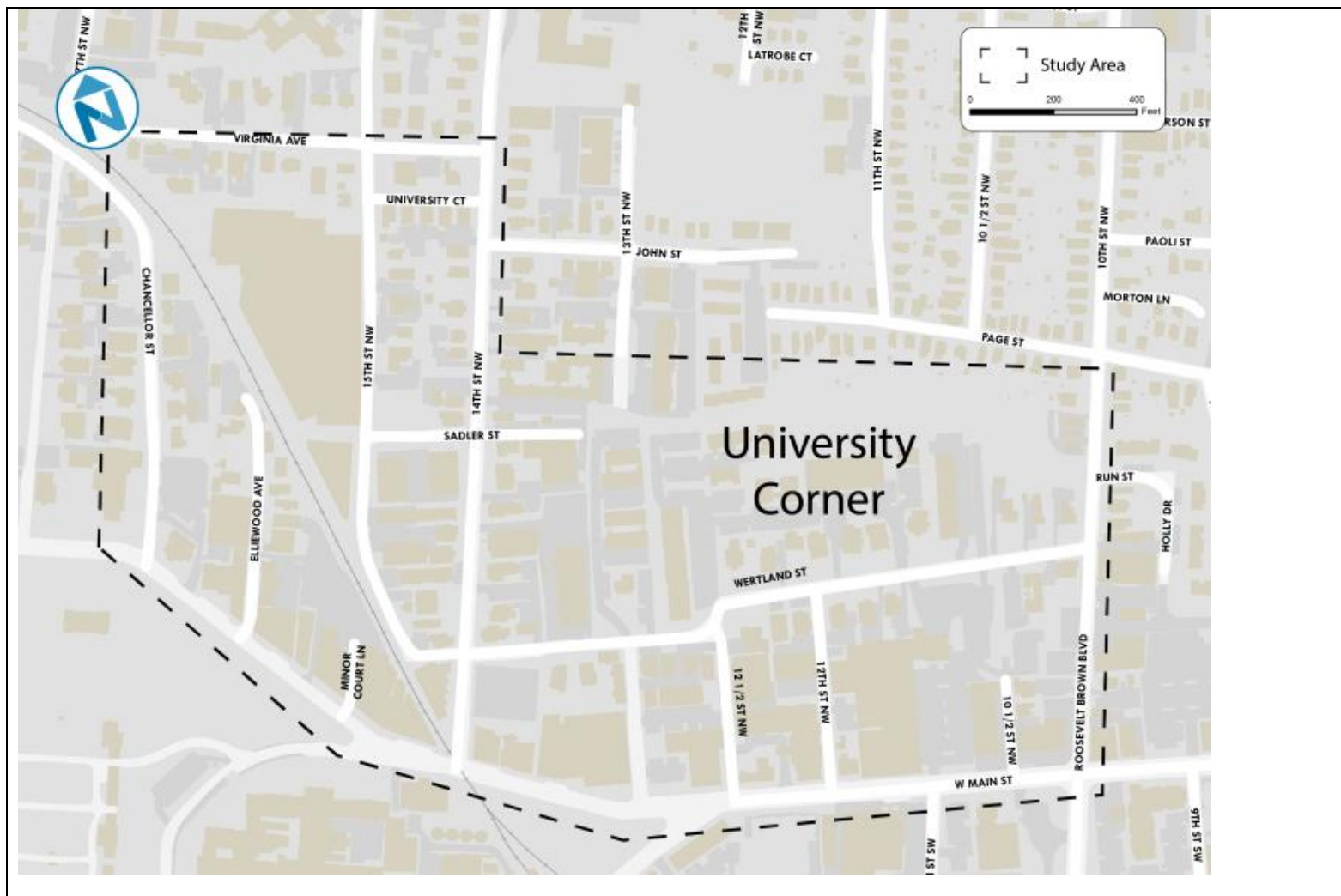
CHARLOTTESVILLE PARKING ANALYSIS - DRAFT  
City of Charlottesville

Figure 1 Downtown Study Area



CHARLOTTESVILLE PARKING ANALYSIS FINAL REPORT  
City of Charlottesville

Figure 2 University Corner Study Area



## DATA COLLECTION

The project gathered an extensive amount of detailed information in order to understand parking conditions in the city center and University Corner areas. This information:

- Provided a spatial understanding of parking supply, pricing, and restrictions
- Identified typical occupancy and accompanying issues
- Informed an appropriate set of prospective management techniques
- Identified and engaged affected stakeholder groups
- Provided insights into prevailing attitudes towards potential solutions

The data reflecting this subject matter was collected through several initiatives, including:

- **Parking Inventory, Utilization, and Turnover Assessment.** Inventory data was collected in April 2015 including the number of on- and off-street spaces and their corresponding regulations or management practices. A comprehensive on-street occupancy survey was undertaken in stages beginning Wednesday, April 22, 2015 and ending May 2. Weekday data was collected in hourly cycles from 8 a.m. to 8 p.m. while Saturday data collection extended from 11 a.m. to 10 p.m. The survey dates were chosen such that the demand impact of the University of Virginia would be reflected in the count while avoiding confounding issues of major festivals, holidays or events. Private and public off-street lot utilization was determined on Wednesday, May 13, 2015 from 7 a.m. to 9 p.m. and Saturday, May 16, 2015 from 10 a.m. to 10 p.m.
- **Integration of Municipal Data.** Data collected by the City of Charlottesville pertaining to municipal parking structure utilization and ticketed parking violations was provided to Nelson\Nygaard for use in this analysis. Data from Thursday April 23, 2015 and Saturday April 25, 2015 was chosen for use in the study.
- **Stakeholder Meetings.** On March 31<sup>st</sup> and April 1<sup>st</sup> 2015, Nelson\Nygaard conducted stakeholder meetings at Charlottesville City Hall. Stakeholders were divided into focus groups based on affiliation. Groups of city residents, major employers, small business representatives, and governmental agency staff met with facilitators to discuss issues pertinent to each group.
- **User Surveys.** Throughout April and May 2015, three online surveys collected qualitative data on user experiences, preferences, and perceptions. Each survey targeted a different segment of the downtown Charlottesville user population: business operators, workers, and the general public. The surveys informed development of context-specific and effective management strategies.



# PARKING SUPPLY

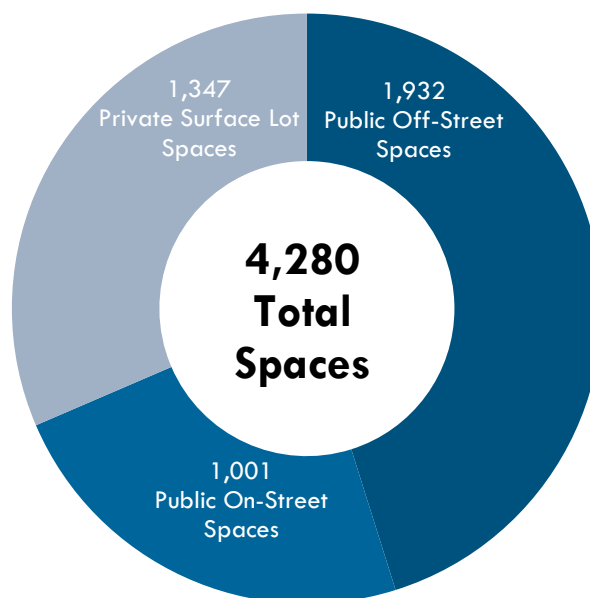
A comprehensive parking inventory of all on-street spaces was performed for the Downtown and University Corner study areas. In the downtown, municipal garages and all off-street surface lots containing 20 or more parking spaces (public and private) were also inventoried.

## DOWNTOWN PARKING INVENTORY

Allowing for variation due to temporary construction activities, there are approximately 4,280 parking spaces accessible to the public in the Downtown study area. This number differs significantly from the 6,000 reported in the 2008 study as it does not include the over 1,700 parking spaces located in private parking structures inaccessible to the public. For example, the garages at Merkle | RKG at 701 Water Street East and indoor/underground parking for the ACAC Fitness & Wellness Center located at 455 2<sup>nd</sup> Street SE were not included. The Omni Hotel at 212 Ridge McIntire Road has about 400 parking spaces in a large private garage. While the garage is primarily for guests, the hotel has monthly passes available for \$125/month and hourly parking for \$2/hour when there is space available. There are approximately 90 people with monthly parking permits.

Of the total parking spaces inventoried, 2,933 (69%) are publicly controlled – 1,001 on-street and 1,932 in off-street facilities. Another 1,347 (31%) parking spaces accessible to the public are in private off-street lots (Figure 3).

**Figure 3** Total Parking Inventory – Downtown Study Area





Of the 1,347 private surface lot parking spaces, some parcels currently available as parking are proposed for future development. These include 63 parking spaces located in a gravel parking lot at First Street South and Garrett Street. At 201 Monticello Avenue, a former church building provides 50 parking spaces until construction begins for its approved redevelopment. Finally, the block bounded by Water Street, 1<sup>st</sup> Street, South Street and 2<sup>nd</sup> Street SW may be developed in the future. The property currently accommodates 105 public spaces and 23 private. These planned redevelopments result in an anticipated reduction of parking supply by roughly 220 spaces (about 5 percent).

## Public Parking Inventory

### On-Street

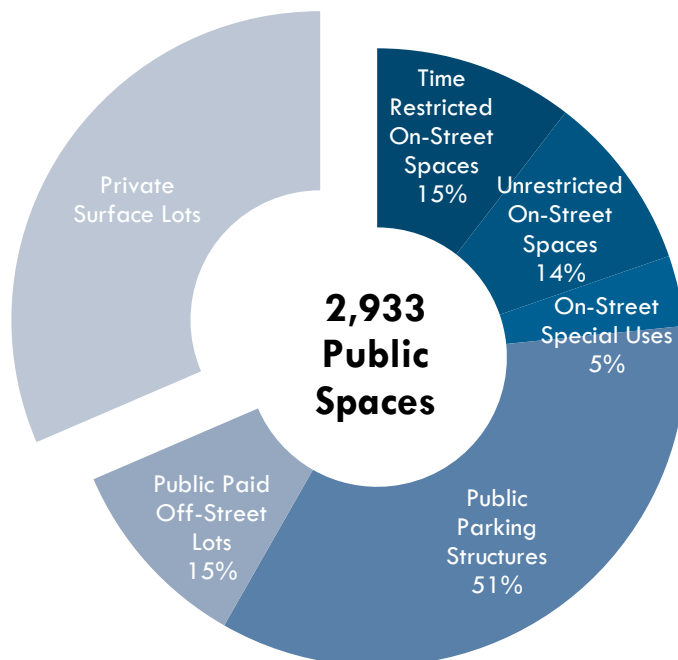
Of the 1,001 on-street parking spaces in the Downtown study area, 447 are reserved for short-term parking restricted by time limits (45 percent of the on-street supply). There are 396 unrestricted spaces (40 percent), allowing for all-day parking. Finally, 127 spaces (13 percent) are designated for special uses such as loading zones, handicapped spaces, and permit holders, including 31 reserved for government staff (Figure 4). All on-street parking in the City of Charlottesville is currently unpaid.

### Off-Street

Of the off-street public parking inventory, all of which is paid parking, the two municipal parking structures account for 77 percent of supply (1,492 spaces). The Market Street garage has 473 spaces and the Water Street garage has 1,019. Parking garages operate daily from 6 a.m. to midnight with extended hours (to 1 a.m.) on weekends. Sunday hours are noon to 10 p.m.

The cost to park at the Market Street garage is \$1.25 for the first half hour and \$2.50 for any hour thereafter with a daily maximum of \$20.00. The Water Street garage is \$2.00 per hour, or

Figure 4 Public Parking Inventory – Downtown Study Area



any portion thereof, with a daily maximum fee of \$16.00.

Pre-paid monthly permit parking is \$135 at the Market Street garage and \$120 at the Water Street garage. The Market Street garage has 381 monthly parking permits and 87 people currently on a waiting list. As of July, 2015, the Water Street garage has 900 monthly contracts in place and an additional 106 spaces leased by a private 3<sup>rd</sup> party company. Monthly permits no longer remain available for the Water Street garage and a waiting list has been instituted.

The garages offer a parking validation program for area businesses. Roughly 150 downtown businesses participate in the validation program providing one or two hours of free parking to their customers. Businesses pay a discounted fee to the Charlottesville Parking Center, the operator of the garages, to provide patrons or visitors validated parking.

The remaining 23 percent of off-street publicly available parking supply (344 weekday daytime spaces, 440 nights and weekends) is located in surface lots at 100 East Market Street, 100 Water Street East, and 100 South Street West (Figure 5). The Citizens Commonwealth Center at 300 Preston Avenue contributes 96 spaces to the public supply outside of regular business hours.

### **Effects of Development/Projects on Off-Street Supply**

Three foreseen projects will have an effect on the overall downtown parking supply. The Levy Lot, located on Market Street between 7<sup>th</sup> and 8<sup>th</sup> Streets NE is slated for redevelopment by the housing authority. This lot is currently used for city employee parking and provides 63 private off-street spaces (permit required, no daily sale of parking to the public) in the Government Zone.

A reconstruction of the Belmont Bridge carrying 9<sup>th</sup> Street SE over the railroad will remove approximately 50 unregulated parking spaces beneath one of its spans. This lot was outside of the study boundaries and not included in the off-street inventory of this study, however it is important to note the pending loss of these spaces.

Finally, the Market Plaza proposal will replace and redevelop the existing parking lot at Water and First Streets. After a three year disruption, 102 of the existing 105 public parking spaces will be restored. The City Market will continue to operate on Saturday mornings in the only remaining publicly available surface lot in the Market Zone until the development is completed.

## City of Charlottesville

## Downtown Study Area Parking Inventory



## On-Street Parking

The on-street parking supply in the Downtown study area is categorized by a number of timed regulations (two hour, one hour, 15 minutes), special uses (loading, dropoff, ADA, government, permit, motorcycle), and unrestricted spaces (See: Glossary, Pages 18-19).

The four zones of the study area have different proportions of these restrictions, owing to the nature of land use in each quarter. The Cultural Zone in the northwest is dominated by the two-hour restriction and contains the largest quantity of loading zones. The Government Zone in the northeast contains the vast majority of spaces reserved for government employees due to the presence of both City Hall and the Albemarle Circuit Court. A balance of two hour and unrestricted spaces, often in close proximity, characterizes the Market Zone in the southwest while large concentrations of unrestricted spaces (28% of the entire on-street inventory) are found in the Southeast Zone (Figure 6).

**Figure 6**      **Downtown On-Street Parking Overview**

Downtown Study Area On-Street Parking Overview				
	Cultural Zone	Government Zone	Market Zone	Southeast Zone
Unrestricted	27	10	82	278
2 hour	145	117	100	54
1 hour	7	17	7	0
15 minutes	0	0	3	0
ADA	19	22	3	6
Loading	17	14	11	11
Government	1	28	2	0
Permit	0	0	9	4
Dropoff	3	0	0	0
Motorcycle	0	0	1	1

Note that the figures given are weekday figures determined in April 2015. Inventory may fluctuate due to temporary events or construction activity. For example, seven two-hour spaces found on Market Street between 2<sup>nd</sup> and 3<sup>rd</sup> Streets NE can be converted into a loading zone for the Paramount Theatre through the use of hinged restriction signage. These spaces are included in the time restricted parking supply.

## UNIVERSITY CORNER ON-STREET PARKING INVENTORY

Again allowing for temporary variation, there are 196 on-street parking spaces in the University Corner study area. Represented graphically in Figures 7 and 8, roughly half of these spaces (97) are unrestricted while 57 spaces (29 percent) have some time limit. There is a significant amount of residential permit parking in this area. Thirty-one spaces (16 percent of curbside spaces), all found along Wertland Street, require a Zone 1 permit between the hours of midnight and 7 p.m., seven days per week.

Figure 7 On-Street Parking Inventory – University Study Area

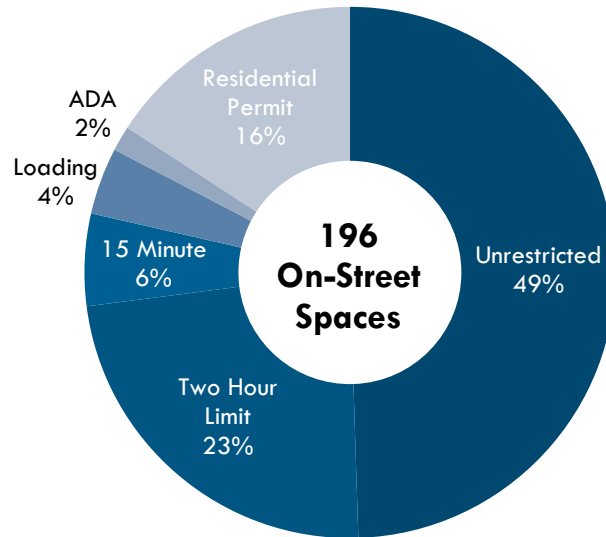


Figure 8 University Corner Study Area Parking Inventory





## BICYCLE PARKING INVENTORY

Charlottesville is recognized as a Silver Bike Community by the League of American Bicyclists and a Gold Walk Community by the Pedestrian and Bicycle Information Center. As of February 2015, the city had 13.6 miles of signed bicycle routes, 13.1 miles of bicycle lanes, 3.3 miles of shared lane markings, 9.6 miles of shared use paths, and 0.4 miles of contraflow bike lanes (located on South Street, at the western edge of the study area). U.S. Bike Route 76, an east-west bike route that runs from Nelson County through Charlottesville to Fluvanna County passes south of the Downtown Mall on Water Street.<sup>2</sup>

There are currently 26 bicycle parking facilities downtown that can accommodate a total of 160 bikes. Currently, downtown bike facilities are predominantly “staple” and bollard styles, along with two bike corrals (18 total spaces). The Market Street Parking garage offers 30 short-term bike parking spaces.

The city’s Bicycle/Pedestrian Master Plan was updated in 2015 and contains specific recommendations for city policies and transportation facilities. To help identify where bicycle and pedestrian facilities are most needed, the City measured demand for walking and biking and found the Downtown Mall and the University of Virginia to be two clear areas where bicycle and pedestrian demand are highest.

The city’s Bicycle/Pedestrian Master Plan recommends bicycle lanes for West Main Street, Ridge McIntire Road, and 9<sup>th</sup> Street NE, while climbing bike lanes are prioritized for East/West High Street, West Market Street, and Monticello Avenue. North of the study area shared roadways are recommended on Park Street.

Finally, the plan notes that as the City of Charlottesville reviews and revises the sections of City code that address parking, it should adopt bicycle parking standards. The new standards should address different types of bicycle parking for different needs, including long-term versus short term storage, as well as protection from the elements.

## ON-STREET PARKING RESTRICTION GLOSSARY

- **Two Hour** – Parking limited to a duration of two hours between 8AM and 6PM, Monday through Saturday. These spaces may defer to loading zone or trash pickup restrictions during certain morning hours as is common along Water Street.
- **One Hour** – Parking limited to a duration of one hour between 8AM and 6PM, Monday through Saturday.
- **Fifteen Minutes** – Parking limited to a duration of fifteen minutes. Times of day that this restriction is in effect vary between downtown and the University Corner. May share restriction with loading zones.
- **Permit** – Parking restricted to those with corresponding parking permits. These are most often permits for residents which apply to a specific zone. These spaces are not time-limited.

---

<sup>2</sup> <http://tjcdc.org/route76/albemarlemap.html>

- **Government** – Parking reserved for governmental functions. Examples include but are not limited to Sheriff Department vehicles, judges' personal vehicles, and vehicles owned by the Department of Social Services. These spaces are not time-limited.
- **Loading Zone** – Temporary parking for commercial vehicles involved in delivery of goods and services. Restriction time of day varies and is sometimes shared with two hour parking. When signed expressly as a loading zone, this restriction is in effect between 8AM and 6PM, Monday through Saturday. These spaces are not time-limited.
- **ADA** – Parking reserved for persons with disabilities. Vehicles must display either a state-issued handicapped license plate or a hanging placard behind the front windshield. These spaces are not time-limited.
- **Drop-off** – Temporary standing space for convenient drop-off of passengers. This restriction is generally associated with churches in the cultural zone and is often only in effect on Sundays.
- **Motorcycle** – Parking reserved for multiple motorcycles in the size of a traditional parking space. These spaces are not time-limited.
- **Unrestricted** – Unreserved and unsigned on-street parking with no time limit.



# PARKING DEMAND

Based on the parking data collected, the following metrics were calculated and analyzed for various subsets of parking:

- Downtown and University Corner on-street average hourly utilization
- Downtown and University Corner on-street average duration
- Downtown and University Corner on-street average turnover
- Downtown off-street periodic utilization
- Downtown parking structure hourly utilization

**Parking utilization** is defined as a ratio of occupied parking spaces divided by the total inventory. Utilization rates directly reflect the ability of a motorist to find convenient and available parking within a particular area. Rates between 75 and 85 percent signify a nearing of the practical capacity for on-street parking; the opportunity to find parking is reasonable and turnover rates remain healthy. Exceeding the 85 percent threshold on-street can result in undesirable consequences from convenience, traffic generation, and commercial perspectives. Below 95 percent utilization is typically desired for off-street parking facilities where parking can be more predictably managed. Exceeding these levels can mean that customers will have difficulty finding parking on a particular street, group of streets, or within a facility. A utilization rate greater than 100 percent describes an overcrowded parking condition and implies the likely presence of illegal parking.

**Duration** describes the length of stay of a single vehicle in a particular parking space. If all regulations are being followed, the observed duration is equal or less than the posted time limit (where applicable). The typical parking time limit in Charlottesville is two hours. Time limits are employed as a strategy to encourage turnover of prime parking spaces, and maximize the number of individuals who can use a particular space during business hours.

**Turnover**, directly related to duration, calculates the number of vehicles that use a parking space over a study period. The average turnover metric measures the performance of groups of parking spaces with respect to serving potential customers/visitors. When restrictions are present, turnover should approach or exceed the length of the study period divided by the time limit of the restriction. For example, a two-hour space during a 10-hour study period should handle a minimum of five vehicles.

## SUMMARY OF DEMAND

Overall, parking demand is substantial, but uneven, across the Downtown and University Corner areas. Each zone demonstrates unique parking behavior that reflects the dominant land uses and generators in each area. Generally off-street parking is less well utilized than on-street parking. This reflects expected economic behavior given that one must pay to park off street while parking on street is free. Demand also differs by the time of day as shown in Figure 9 through Figure 14.

CHARLOTTESVILLE PARKING ANALYSIS - DRAFT  
City of Charlottesville

Figure 9 Downtown Parking Demand 9 AM

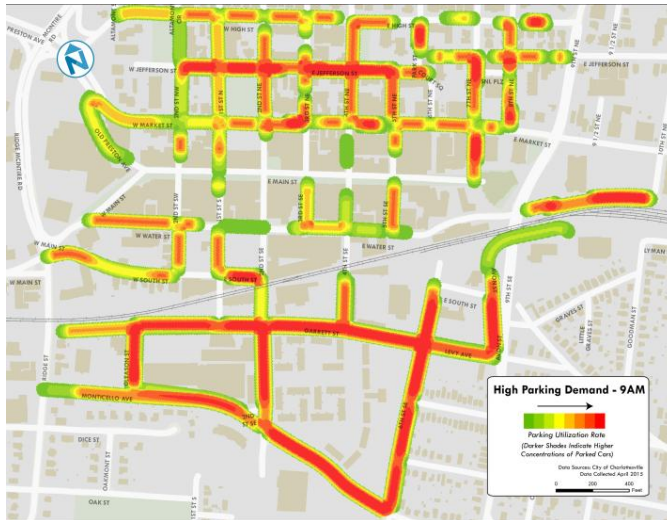


Figure 10 Downtown Parking Demand 1 PM

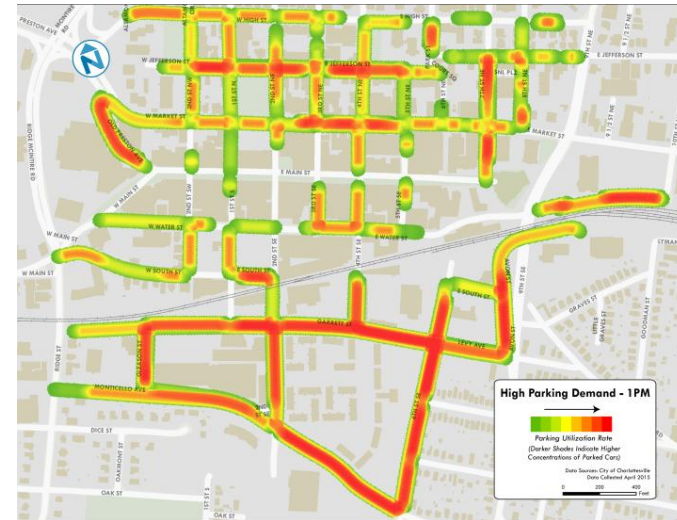
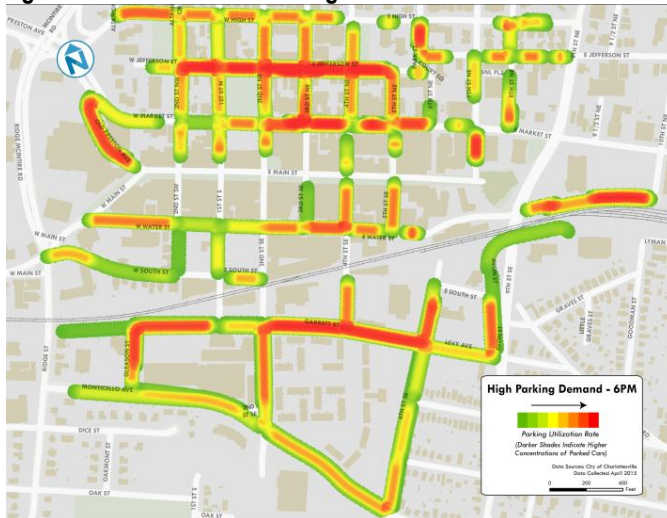
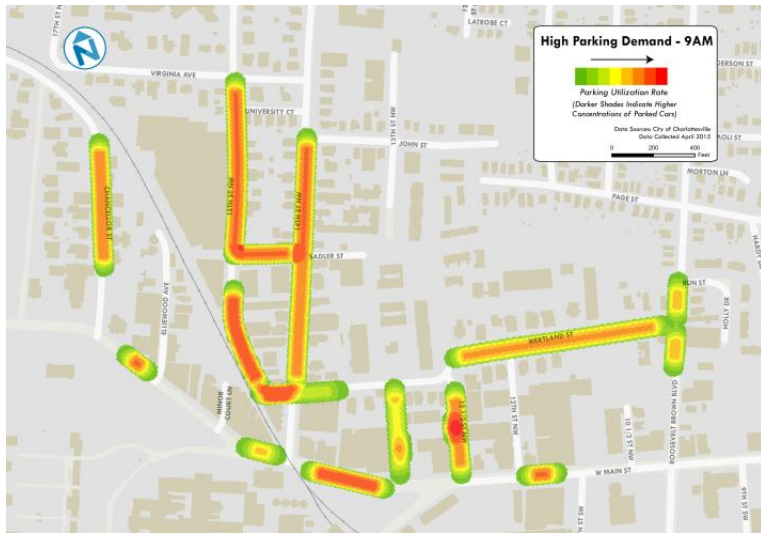


Figure 11 Downtown Parking Demand 6 PM

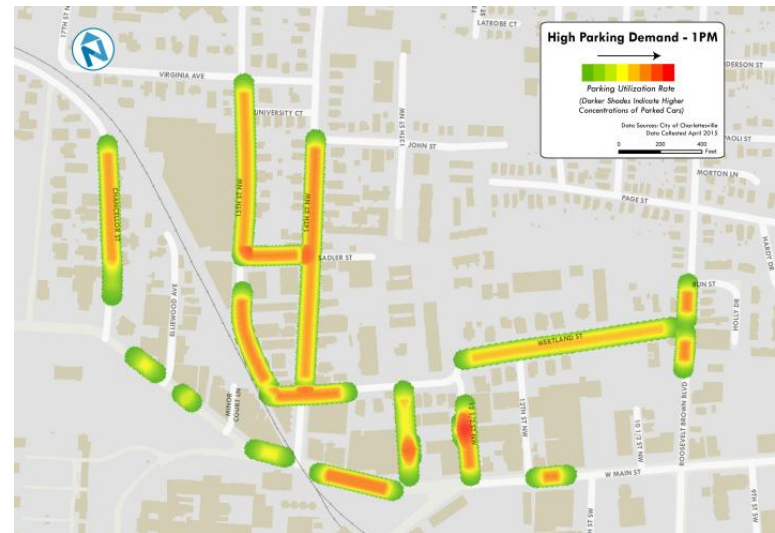


**CHARLOTTESVILLE PARKING ANALYSIS FINAL REPORT**  
City of Charlottesville

**Figure 12 University Parking Demand 9 AM**



**Figure 13 University Parking Demand 1 PM**



**Figure 14 University Parking Demand 6 PM**



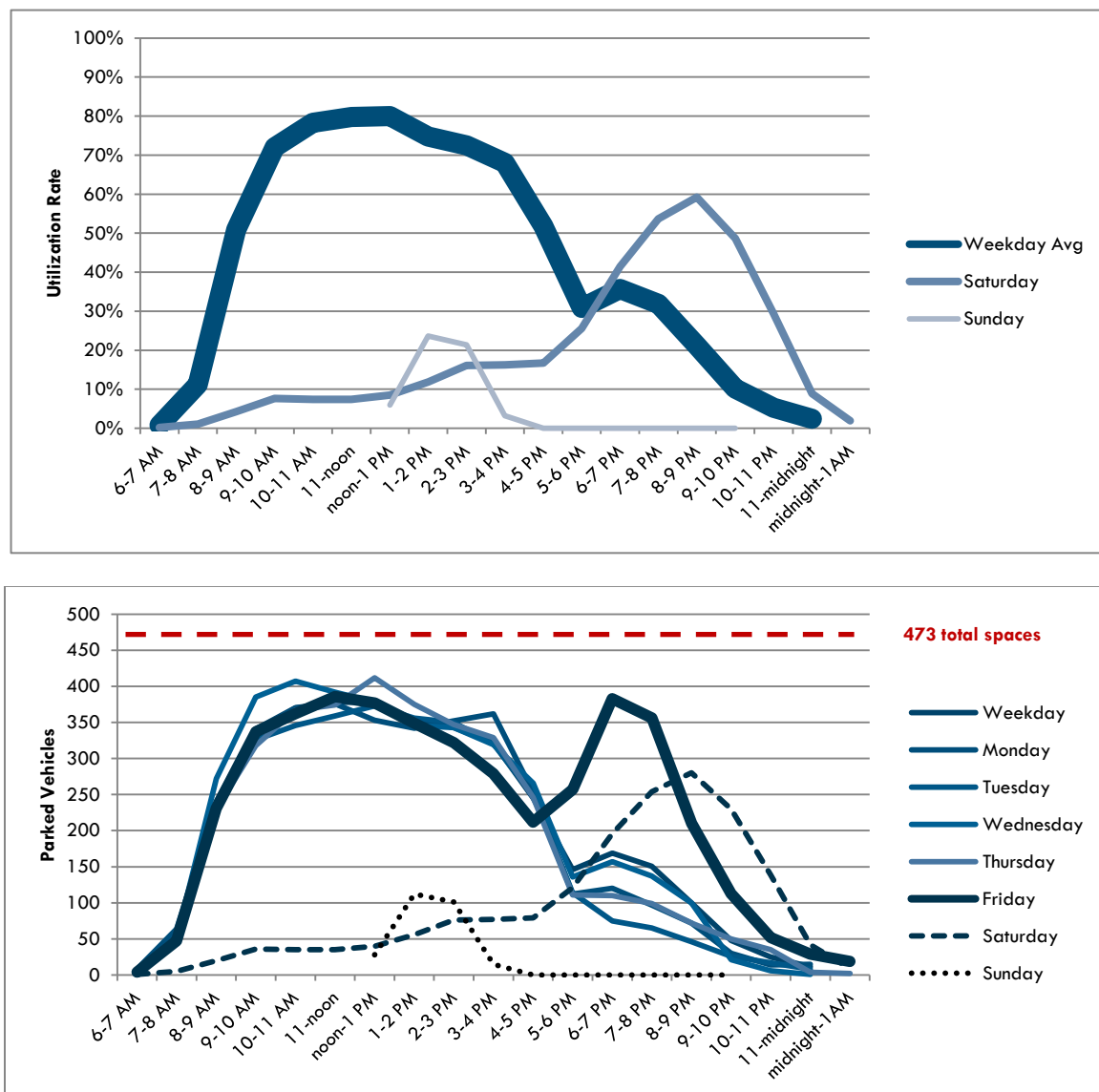


## OFF-STREET PARKING UTILIZATION

Charlottesville has two primary public parking facilities, both located in the Downtown area. The 473 space Market Street parking garage is located on the north side of the Mall toward the east end adjacent to City Hall and proximate to the court complex and Pavilion – each about one block away. The 1019 Water Street parking garage is centrally located one block south of the Mall.

Although less than half the size of the Water Street facility, the Market Street Garage generally sees higher rates of demand. This is not unexpected given its proximity to government offices and other major employment. Even so, the Market Street Garage, during the representative week (April 20, 2015) was not fully utilized with parking volumes peaking just over 400 (Figure 15).

Figure 15 Market Street Garage



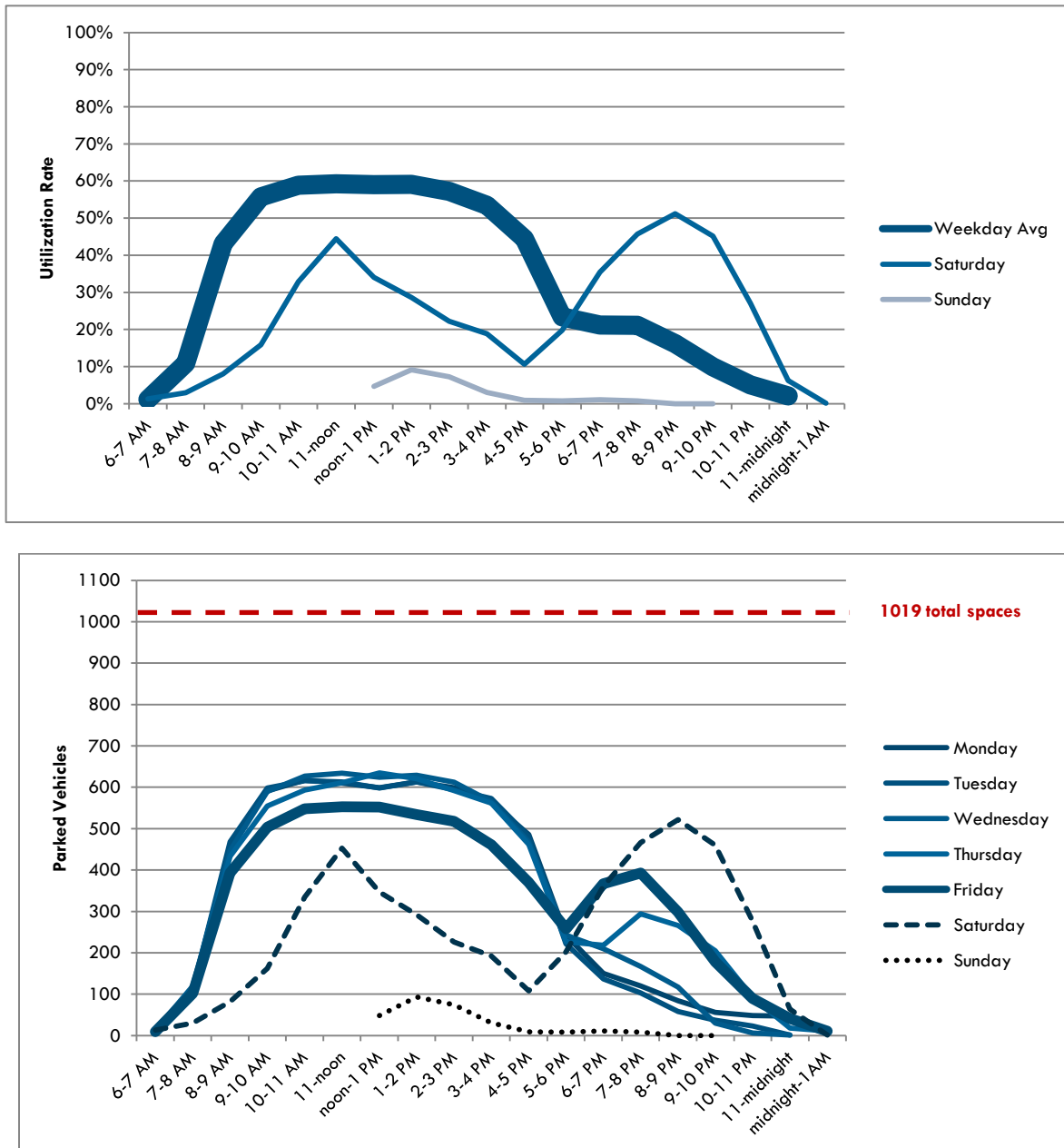
Source: Charlottesville Parking Center data for the week of April 20, 2015

**CHARLOTTESVILLE PARKING ANALYSIS FINAL REPORT**  
City of Charlottesville

Gross parking numbers are higher at the Water Street facility with about 630 parked vehicles during the peak hour (around 12 noon), however given the size of the facility (1019 parking spaces), peak utilization is much lower than at the Market Street facility. Utilization during the model week rarely exceeded 60% (Figure 16).

Both garages see substantial demand on Saturday evenings, although neither exceeded 60% occupancy on the sample Saturday. The Water Street Parking Garage also saw significant demand during the market period (around noon).

**Figure 16 Water Street Parking Garage**



Source: Charlottesville Parking Center data for the week of April 20, 2015

Both garages have issued a large quantity of monthly parking permits. At the time of data collection (April 2015), Market Street had issued 381 monthly permits while Water Street had issued 842 (plus another 106 3<sup>rd</sup> party reserved spaces). If all monthly parkers appeared demanding spots at the same time, this would consume 80% and 93% of the garage spaces respectively. However, this does not happen. In actuality, monthly permit holders represent roughly one-half (50%) of vehicles utilizing the garages with transient (daily) parkers making up the balance. Fewer than 250 monthly permit holders routinely occupy the Market Street garage while no more than 545 of the Water Street permit holders occupied the garage at any given time.

Only about 65% of permit holders use their permits on a given day. It is common practice to “oversell” permits at a rate of 10% to 25% (15% is a common benchmark industry standard), however Charlottesville is demonstrating the ability to comfortably oversell by 25% or more.

The extensive wait list for monthly permits in the Market Street garage (87 at present) and the high relative oversell rate indicate that price is not a significant deterrent with many users willing to pay the monthly parking rate even without routinely using the space. This may indicate an insecurity about the reliability of supply with buyers preferring to bear the burden of excess parking cost over the risk insufficient parking.

## **ZONE SUMMARIES**

The zone summaries document findings for each of the quadrants of Downtown as well as the University Corner area. For the purposes of this analysis

- Practical capacity is generally between 75% and 85% of the total number of spaces for on-street parking and 95% of off-street spaces. Times when parking demand reached practical capacity are coded light pink in the tables that follow.
- Maximum capacity is generally considered to be an occupancy of 86% to 100% of the total number of space either on- or off-street. Periods when parking demand reached or exceeded maximum capacity are coded dark pink in the tables.

Well managed parking will generally approach, but not routinely exceed, the practical capacity.

### **Cultural Zone**

The Cultural Zone experiences high on-street occupancy for all parking types for much of the weekday. This demand grows during the evening hours. Unlike the other zones surveyed, the Cultural Zone sees even greater demand on Saturdays when the dominant restriction type – a two-hour time limit – exceeds the practical capacity for the entire day and exceeds the maximum capacity during dinner hours. Concurrently during peak periods, the utilization of public off-street lots is far below capacity, never exceeding 61 percent, indicating a comparative under-utilization of these resources (Figures 17 – 20).

#### **Cultural Zone: Weekday**

- The Cultural Zone has greater than 80 percent occupancy for all on-street parking types for a large majority of the weekday, with demand peaking in the evening hours. Concurrently, unused capacity exists in the off-street facilities.
- Unrestricted spaces (along High Street), though limited in quantity, are high in demand, generally filling before restricted spaces and remaining fully occupied for the duration of the day, including evening hours. Turnover of these spaces is low, with each space

- serving, on average, just 3.3 vehicles per day compared to roughly 6 vehicles per day served by the time restricted spaces.
- One- and two-hour restricted space utilization exceeds the practical capacity for half of the study period. Twenty-seven percent of motorists overstay the one-hour time restriction while 16 percent exceed the two-hour maximum permitted period.
  - Fifty-nine percent of all vehicles stay less than one hour.
  - Parking duration in unrestricted spaces was more than double that of time restricted spots (averaging 3.3 hours compared to roughly 1.6 hours in other spaces).

### **Summary of Weekday Findings**

Field observations and data suggest that the parking market in this area is fairly price sensitive. Despite demonstrating a strong need for longer duration parking, users seem to prefer the inconvenience of time limits on free parking over the longer durations, but higher cost, of off-street parking options. Demand spans from morning through the early evening hours, reflective of the 18-hour workforce in this area generated by the mix of office, retail, and food and beverage establishments.

The Cultural Zone demonstrates strong demand for both short-term patron and transactional parking and longer-term employee parking. In general, the existing time-restricted parking appears to meet the needs of shoppers and other patrons to the area.

**CHARLOTTESVILLE PARKING ANALYSIS FINAL REPORT**  
City of Charlottesville

**Figure 17**      **Downtown Cultural Zone Weekday Utilization Table**

<b>Utilization Rates: Downtown Cultural Zone</b> Wednesday, April 22, 2015 (On-Street) – Wednesday, May 13, 2015 (Off-Street)							
	<b>On-Street</b>					<b>Off-Street</b>	
	<b>2 Hour</b>	<b>1 Hour</b>	<b>Unrestricted</b>	<b>All Other Restrictions</b>	<b>Total, All Restrictions</b>	<b>Public Lots</b>	<b>Private Lots</b>
Capacity	145	7	27	40	219	77-173*	117-213*
8 AM	35%	100%	96%	20%	42%		
9 AM	72%	100%	93%	55%	72%		
10 AM	89%	100%	100%	45%	83%	49%	52%
11 AM	79%	71%	93%	40%	74%		
12 PM	88%	71%	96%	58%	83%		
1 PM	86%	57%	100%	48%	80%	94%	42%
2 PM	76%	71%	93%	38%	71%		
3 PM	84%	100%	74%	65%	80%		
4 PM	83%	71%	89%	63%	80%	56%	28%
5 PM	88%	86%	93%	63%	84%		
6 PM	92%	86%	100%	80%	91%		
7 PM	91%	86%	100%	83%	90%	36%	33%

\*Variable capacities reflect the varying operation of the lot at 300 Preston Avenue (Citizens Commonwealth Center) which only allows for tenant/patron parking during normal business hours. The lot functions as publicly available paid parking at all other times.

**Figure 18**      **Downtown Cultural Zone Weekday Turnover Table**

<b>On-Street Duration and Turnover Rates: Downtown Cultural Zone</b> Wednesday, April 22, 2015 8:00 AM – 8:00 PM					
	<b>2 Hour</b>	<b>1 Hour</b>	<b>Unrestricted</b>	<b>All Other Restrictions</b>	<b>Total, All Restrictions</b>
Capacity	145	7	27	40	219
Average duration	1.6	1.4	3.3	1.6	1.8
Average turnover	5.7	7.0	3.3	3.9	5.1
Less than 1 hour	60%	73%	43%	58%	59%
1-2 hours	24%	12%	21%	27%	24%
2-5 hours	15%	14%	12%	13%	14%
5+ hours	1%	-	23%	1%	3%



### **Cultural Zone: Saturday**

- On-street parking demand remains strong on weekends in the Cultural Zone. Two-hour parking spaces are the first to fill, while other spaces see increasing occupancy throughout the morning. By early afternoon, there is greater than 85 percent occupancy for all parking types. By evening demand exceeds capacity and illegal parking on-street can be readily observed.
- Off-street utilization is comparatively low, even in the evening hours during the height of on-street demand. Off-street utilization is far below capacity, never exceeding 50 percent.
- Vehicles tend to stay longer on Saturdays than on weekdays, with 43% of vehicles staying less than one hour compared to 59 percent on weekdays. Twenty-six percent of motorists are overstaying the two-hour time restriction in this zone compared to 16% weekdays.
- Similarly, turnover is significantly lower on Saturdays than weekdays with two-hour spaces servicing just 4.6 vehicles on Saturdays compared to 5.7 on weekdays and one-hour spaces serving even fewer (3.6 vehicles compared to 7.0 vehicles during the week).

### **Summary of Saturday Findings**

Once again, even on weekends the Cultural Zone demonstrates demand for longer duration parking. This demand is even more pronounced on Saturdays than on weekdays, likely attributable to the destination-district nature of the zone. Despite this demand for longer duration parking, the off-street facilities are poorly used. This may be a result of the pricing imbalance between on- and off-street opportunities, but may also be attributable to poor wayfinding or signage as it is reasonable to conclude that many patrons of the Cultural Zone may be visitors to the city unfamiliar with the location or operation of the off-street facilities.

**CHARLOTTESVILLE PARKING ANALYSIS FINAL REPORT**  
City of Charlottesville

**Figure 19**      **Downtown Cultural Zone Saturday Utilization Table**

<b>Utilization Rates: Downtown Cultural Zone</b> Saturday, May 2, 2015 (On-Street) – Saturday, May 16, 2015 (Off-Street)							
	<b>On-Street</b>					<b>Off-Street</b>	
	<b>2 Hour</b>	<b>1 Hour</b>	<b>Unrestricted</b>	<b>All Other Restrictions</b>	<b>Total, All Restrictions</b>	<b>Public Lots</b>	<b>Private Lots</b>
Capacity	134	7	26	47	214	173	117
11 AM	91%	57%	77%	47%	79%		
12 PM	89%	57%	77%	49%	78%		
1 PM	87%	71%	77%	57%	79%	31%	17%
2 PM	93%	71%	85%	66%	85%		
3 PM	96%	71%	81%	68%	87%		
4 PM	94%	71%	88%	66%	86%	23%	22%
5 PM	97%	57%	73%	79%	89%		
6 PM	101%	100%	65%	83%	93%		
7 PM	107%	100%	77%	79%	97%	45%	11%
8 PM	102%	86%	92%	70%	93%		
9 PM	99%	100%	96%	64%	91%		

**Figure 20**      **Downtown Cultural Zone Saturday Turnover Table**

<b>On-Street Duration and Turnover Rates: Downtown Cultural Zone</b> Saturday, May 2, 2015 11:00 AM – 10:00 PM					
	<b>2 Hour</b>	<b>1 Hour</b>	<b>Unrestricted</b>	<b>All Other Restrictions</b>	<b>Total, All Restrictions</b>
Capacity	134	7	26	47	214
Average duration	2.2	2.4	4.3	3.0	2.5
Average turnover	4.6	3.6	2.0	2.3	3.8
Less than 1 hour	47%	44%	15%	37%	43%
1-2 hours	27%	28%	30%	27%	27%
2-5 hours	19%	24%	25%	19%	19%
5+ hours	7%	4%	30%	17%	10%

## **Government Zone**

Impacted heavily by the municipal and county uses in the area, the Government Zone sees heavy usage during traditional business hours before a large dropoff in demand in the late afternoon. On-street parking utilization reaches practical capacity by early morning and maintains this level of occupancy until mid-afternoon. Over 13 percent of on-street spaces in this zone are reserved for government employees. These spaces have comparatively lower utilization and turnover rates. The Market Street garage is the only source of public off-street parking in this zone. In this zone, due to the demands generated by the municipal uses, the garage is well used, commonly achieving utilization slightly above practical capacity at midday (Figures 21 – 22).

On Saturday, occupancy for all on-street parking types is greatly reduced in the Government Zone. This is also a sharp contrast to the neighboring Cultural Zone. Spaces in the Market Street garage are more available on Saturday with utilization below 60 percent (Figures 23 – 24).

### **Government Zone: Weekday**

- Higher than 80 percent occupancy for all parking types occurs during the morning hours, with a large dropoff in the late afternoon. It should be noted that curbside occupancy observations were made on a Wednesday; Tuesday mornings are traditionally the busiest day and period for court activities.
- Two-hour restricted spaces, which make up more than half of the on-street inventory, see a particular lack of availability during the morning.
- The Market Street garage is the only public off-street parking in this zone and has a high midday occupancy, peaking at 87 percent.
- Forty-four percent of all vehicles stay less than one hour.
- Twenty-seven percent of motorists are overstaying the one-hour time restriction.
- Twenty-four percent of motorists are overstaying the two-hour time restriction.
- Utilization and turnover of spaces reserved for government use is very low.

### **Summary of Weekday Findings**

Parking is highly used in the Government Zone, particularly during the work day. Both on- and off-street spaces are used to their practical maximum capacity. On-street spaces tend to fill before off-street facilities, however, at midday, both resources are heavily occupied. This may become acute on court days when jury selection is in process.

Despite this apparent parking shortage, the larger Water Street garage, just a 5 minute walk (approximately 1,200 feet) from the court facility, has significant unused capacity during the periods of highest demand in the Government Zone. At the 2 p.m. peak, the 1,100 space Water Street garage is less than 60 percent occupied, leaving over 400 spaces available for use by Government Zone motorists. Although a a modest walk, this facility may become an ever more attractive option on peak days where parking within the zone is heavily used.

The Government Zone appears to be less price sensitive than other zones. This may be because parking vouchers and employee benefits eliminate or substantially mitigate the impact of the parking fee, essentially balancing the cost to park either on-street or off-street.

**CHARLOTTESVILLE PARKING ANALYSIS FINAL REPORT**  
City of Charlottesville

**Figure 21**      **Downtown Government Zone Weekday Utilization Table**

<b>Utilization Rates: Downtown Government Zone</b> Wednesday, April 22, 2015 (On-Street) – Wednesday, May 13, 2015 (Off-Street)							
	<b>On-Street</b>					<b>Off-Street</b>	
	<b>2 Hour</b>	<b>1 Hour</b>	<b>Government</b>	<b>All Other Restrictions</b>	<b>Total, All Restrictions</b>	<b>Market Street Garage</b>	<b>Private Lots</b>
Capacity	117	17	28	46	208	473	247
8 AM	62%	41%	79%	39%	57%	11%	
9 AM	92%	94%	71%	57%	82%	49%	
10 AM	88%	82%	64%	74%	81%	67%	64%
11 AM	87%	88%	54%	63%	77%	78%	
12 PM	84%	88%	61%	41%	72%	79%	
1 PM	80%	82%	61%	51%	72%	87%	65%
2 PM	79%	88%	75%	61%	75%	79%	
3 PM	61%	74%	64%	30%	64%	74%	
4 PM	57%	71%	50%	37%	53%	70%	51%
5 PM	56%	59%	54%	37%	52%	52%	
6 PM	74%	59%	54%	37%	62%	23%	
7 PM	73%	59%	43%	33%	59%	23%	26%

**Figure 22**      **Downtown Government Zone Weekday Turnover Table**

<b>On-Street Duration and Turnover Rates: Downtown Government Zone</b> Wednesday, April 22, 2015 8:00 AM – 8:00PM					
	<b>2 Hour</b>	<b>1 Hour</b>	<b>Government</b>	<b>All Other Restrictions</b>	<b>Total, All Restrictions</b>
Capacity	117	17	28	46	208
Average duration	2.0	1.7	3.3	3.1	2.2
Average turnover	4.2	4.9	2.0	2.3	3.4
Less than 1 hour	41%	72%	29%	41%	44%
1-2 hours	35%	7%	14%	18%	28%
2-5 hours	23%	18%	36%	23%	23%
5+ hours	1%	2%	21%	17%	5%

**Government Zone: Saturday**

- In the Government Zone, occupancy for all parking types is greatly reduced compared with the neighboring Cultural Zone. Even at its peak (8 p.m.), occupancy does not exceed 66 percent.

- Two-hour and government restricted spaces are the most well used on Saturdays, with steady occupancy between 60% and 75% from early afternoon through evening. However, even this is well below full occupancy.
- The Market Street garage has abundant availability on Saturday. It is most highly occupied in the evening, but even then never higher than 60 percent.
- Thirty-four percent of all vehicles are staying less than one hour (compared to 44% weekdays).
- Forty-nine percent of motorists are overstaying the one-hour time restriction in this zone (27% weekdays).
- Forty-four percent of motorists are overstaying the two-hour time restriction in this zone (24% weekdays).
- Turnover is very low with most spaces serving, on average, just two vehicles per day.

### Summary of Saturday Findings

Demand is generally low in the Government Zone. Although immediately adjacent to the high-Saturday demand Cultural Zone, there is limited spillover and it does not penetrate all the way over to the Market Street garage. There is a demand for longer duration parking in this zone, but at present it does not appear that there is a need to manage parking supply with either time limits or parking fees in this zone given the modest demand.

This zone could lend itself well to serving as a supplemental resource to the Cultural Zone to meet the demand for longer duration and lower cost parking on Saturdays.

**Figure 23      Downtown Government Zone Saturday Utilization Table**

Utilization Rates: Downtown Government Zone Saturday, May 2, 2015 (On-Street) – Saturday, May 16, 2015 (Off-Street)							
	On-Street					Off-Street	
	2 Hour	1 Hour	Government	All Other Restrictions	Total, All Restrictions	Market Street Garage	Private Lots
Capacity	117	17	28	46	208	473	247
11 AM	63%	71%	61%	41%	59%	7%	
12 PM	68%	47%	61%	41%	60%	7%	
1 PM	68%	47%	57%	33%	57%	8%	28%
2 PM	46%	47%	50%	24%	42%	12%	
3 PM	59%	41%	64%	28%	51%	16%	
4 PM	61%	29%	68%	28%	52%	16%	25%
5 PM	62%	35%	71%	28%	53%	17%	
6 PM	61%	59%	71%	35%	56%	26%	
7 PM	70%	65%	57%	37%	61%	41%	24%
8 PM	74%	71%	71%	39%	66%	54%	
9 PM	72%	71%	68%	41%	64%	59%	



**Figure 24      Downtown Government Zone Saturday Turnover Table**

<b>On-Street Duration and Turnover Rates: Downtown Government Zone</b> Saturday, May 2, 2015 11:00 AM – 10:00 PM					
	<b>2 Hour</b>	<b>1 Hour</b>	<b>Government</b>	<b>All Other Restrictions</b>	<b>Total, All Restrictions</b>
Capacity	117	17	28	46	208
Average duration	2.7	1.9	4.3	2.9	2.8
Average turnover	2.6	3.1	1.6	1.3	2.2
Less than 1 hour	33%	51%	22%	34%	34%
1-2 hours	24%	25%	28%	14%	23%
2-5 hours	34%	23%	24%	41%	32%
5+ hours	10%	2%	26%	12%	11%

## Market Zone

The Market Zone in the southwest corner of downtown demonstrates a split personality. During the week, it is a traditional employment and main street retail zone. On Saturdays, the City Market makes it a popular destination district (Figures 25 – 28).

Like other areas with substantial daytime employment and commercial activity, parking demand in the Market Zone is highest in the morning and early afternoon and begins to diminish as the day goes on. Unlike the Cultural Zone, there is limited evening parking demand in the Market Zone during weekday evenings. While free on-street parking is well used, the paid off-street lots are generally only half to two-thirds full even during the peak hour, again demonstrating the impact of pricing on parking demand.

On Saturdays, the zone experiences its most acute supply shortages during the Saturday morning Charlottesville City Market, which inspires its name. The market itself is held on a public surface lot, which drastically reduces capacity while simultaneously generating demand. Although filling the remaining on- and off-street surface parking within the zone to practical capacity, the Water Street garage, located just across the zone boundary to the east, remains no more than 51 percent occupied with more than 500 spaces typically available. Similarly, on Saturday evenings, while the surface lots are generally fully occupied, the Water Street garage is very lightly used.

### Market Zone: Weekday

- Two-hour restricted (100 spaces) or unrestricted (82) spaces make up the majority of curbside parking in the Market Zone (83%).
- Unrestricted spaces reach their practical capacity early in the morning and experience sustained demand throughout the work day. Demand eases substantially after 4 p.m.
- Heavily utilized unrestricted parking is in immediate proximity to the two-hour restricted spaces. As a result, two-hour spaces do not see as high a level of utilization, though they do reach practical capacity during business hours.
- The few one-hour spaces are very heavily used while generally less than half of the other restricted spaces (most parking for persons with disabilities or loading zones) are used.

- Public lot utilization never exceeds 50 percent, roughly 150 spaces are routinely available.
- There are very long average stays despite the time restrictions. Only 13% of all vehicles are staying less than one hour. Thirty-six percent of all vehicles stay more than five hours.
- Ninety-four percent of motorists are overstaying the one-hour time restriction.
- Forty-nine percent of motorists are overstaying the two-hour time restriction in this zone.

### Summary of Weekday Findings

While still substantial, the Market Zone has lower typical demand than other zones in the Downtown. Demand is generally for longer duration and is not well matched to the existing time restricted spaces. Off-street parking is significantly underutilized in this zone. Together – the greater willingness to exceed time regulations and the limited usage of paid off-street facilities – may be an indication of more limited enforcement activity compared to other zones. Motorists are more willing to risk an occasional ticket in this zone than routinely pay for parking.

In general, the one-hour restricted parking spaces appear to not serve their intended purpose. These spaces are routinely occupied, but often by drivers that exceed the allowable time limit. At the same time, “Other Restricted” spaces (typically ADA parking or commercial loading) are substantially underutilized. This is an indication to reevaluate both parking categories to examine opportunities to optimize all available curbside spaces during periods of strong demand.

**Figure 25      Downtown Market Zone Weekday Utilization Table**

Utilization Rates: Downtown Market Zone							
Thursday, April 23, 2015 (On-Street) – Wednesday, May 13, 2015 (Off-Street)							
	On-Street					Off-Street	
	2 Hour	1 Hour	Unrestricted	All Other Restrictions	Total, All Restrictions	Public Lots	Private Lots
Capacity	100	7	82	29	218	267	433
8 AM	79%	114%	94%	48%	82%	11%	38%
9 AM	77%	100%	94%	45%	80%		
10 AM	77%	100%	94%	45%	80%		
11 AM	77%	71%	94%	48%	79%	42%	72%
12 PM	78%	71%	95%	48%	80%		
1 PM	78%	71%	95%	55%	81%		
2 PM	66%	100%	85%	55%	73%	43%	57%
3 PM	67%	86%	85%	55%	73%		
4 PM	76%	100%	71%	48%	71%		
5 PM	69%	100%	72%	45%	68%	45%	45%
6 PM	45%	100%	60%	31%	50%		
7 PM	53%	114%	68%	45%	60%		

**Figure 26      Downtown Market Zone Weekday Turnover Table**

<b>On-Street Duration and Turnover Rates: Downtown Market Zone</b> Wednesday, April 22, 2015 8:00 AM – 8:00 PM					
	<b>2 Hour</b>	<b>1 Hour</b>	<b>Unrestricted</b>	<b>All Other Restrictions</b>	<b>Total, All Restrictions</b>
Capacity	100	7	82	29	218
Average duration	3.7	2.5	5.0	6.9	4.3
Average turnover	2.3	4.4	2.0	0.8	2.0
Less than 1 hour	15%	6%	11%	17%	13%
1-2 hours	36%	52%	25%	4%	32%
2-5 hours	18%	42%	19%	8%	20%
5+ hours	31%	-	45%	71%	36%

### **Market Zone: Saturday**

- The Market Zone sees utilization of unrestricted spaces that exceeds practical capacity during market hours and again during the evening.
- Two-hour spaces see surges in utilization at similar times, but again in lower proportion than immediately adjacent unrestricted spaces.
- Public surface lot utilization reaches maximum capacity during market hours due to the loss of significant capacity resulting from the market operation. Public lot utilization exceeds practical capacity during the evening peak.
- Average duration of stays is significantly shorter on Saturdays than on weekdays.

### **Summary of Saturday Findings**

Saturday parking demand is high, but not excessive, in this zone. Saturday mornings in the Market Zone are the only time and location that off-street parking utilization exceeds on-street parking. Demand is predictably highest closest to the city market during the morning event. Demand tapers off midday and begins to rise again on Saturday evenings in association with the dining and entertainment uses in the zone. Parking durations are shorter on weekends, with most users averaging stays of approximately three hours.

Off-street parking on the public surface lot is high in this zone. This lot is contemplated for future development, which would both reduce the public parking supply and relocate parking to a garage facility. Existing demand, save for during the active market time, is less than supply. Private lots in the immediate zone have abundant excess capacity capable of absorbing any demand unmet in the public lots if sharing arrangements were made.

**CHARLOTTESVILLE PARKING ANALYSIS FINAL REPORT**  
City of Charlottesville

**Figure 27      Downtown Market Zone Saturday Utilization Table**

<b>Utilization Rates: Downtown Market Zone</b> Saturday, May 2, 2015 (On-Street) – Saturday, May 16, 2015 (Off-Street)							
	<b>On-Street</b>					<b>Off-Street</b>	
	<b>2 Hour</b>	<b>1 Hour</b>	<b>Unrestricted</b>	<b>All Other Restrictions</b>	<b>Total, All Restrictions</b>	<b>Public Lots</b>	<b>Private Lots</b>
Capacity	99-105*	7	82	33	221-227*	105-267*	433
11 AM	88%	100%	95%	42%	84%	100%	45%
12 PM	63%	100%	85%	36%	68%		
1 PM	45%	100%	70%	30%	54%		
2 PM	43%	100%	65%	30%	51%	34%	21%
3 PM	54%	100%	40%	42%	49%		
4 PM	52%	100%	40%	39%	48%		
5 PM	70%	71%	46%	52%	59%	53%	19%
6 PM	70%	71%	46%	48%	59%		
7 PM	80%	100%	88%	64%	81%		
8 PM	79%	100%	88%	55%	79%	87%	15%
9 PM	65%	100%	87%	45%	71%		

**Figure 28      Downtown Market Zone Saturday Turnover Table**

<b>On-Street Duration and Turnover Rates: Downtown Market Zone</b> Saturday, May 2, 2015 11:00 AM – 10:00 PM					
	<b>2 Hour</b>	<b>1 Hour</b>	<b>Unrestricted</b>	<b>All Other Restrictions</b>	<b>Total, All Restrictions</b>
Capacity	99-105*	7	82	33	221-227*
Average duration	2.8	2.4	3.3	3.6	3.0
Average turnover	2.4	4.3	2.3	1.3	2.3
Less than 1 hour	19%	20%	11%	23%	17%
1-2 hours	41%	40%	27%	36%	35%
2-5 hours	34%	40%	52%	23%	40%
5+ hours	7%	-	10%	18%	8%

\*Variable capacities reflect that certain on-street and off-street spaces were unavailable during the operation and tear-down time of the Charlottesville City Market. The market is held on a public off-street lot, completely precluding parking.

## Southeast Zone

The Southeast Zone is dominated by unrestricted curbside parking. Located along the southern and southeastern edges of the downtown study area, this area constitutes 28 percent of the total on-street parking inventory in the downtown and 79 percent in this zone. The unrestricted nature leads to very low turnover conditions in the Southeast Zone. Weekday demand is steady and high but is not excessive in this zone. Despite its proximity to downtown destinations, the Water Street garage retains a large amount of excess capacity; there are always more than 375 empty spaces (Figures 29 – 30).

The weekend conditions are exactly opposite in this zone. Unrestricted spaces, especially those in low accessibility areas, go unused while the prime two-hour spaces see high utilization after restrictions have expired. The Water Street garage remains only partially occupied throughout the day on Saturdays as it is on weekdays (Figures 31 – 32).

### Southeast Zone: Weekday

- The majority of on-street parking in the Southeast Zone is unrestricted – 278 spaces, accounting for 79 percent of the total curbside space.
- These unregulated spaces are highly utilized (88%) during the peak of the traditional work day (9 a.m. to 4 p.m.). This free, long duration, and unrestricted on-street parking is generally preferred over the paid structured parking in the Water Street garage.
- The 1,019-space Water Street Garage peaks at 62% occupancy at 1 p.m., generally leaving more than 400 parking spaces unused.
- The 54 two-hour restricted spaces are not fully used at any point during the day; however they see their greatest period of use during the lunch hour.
- Only 20 percent of all vehicles are staying less than one hour, with most users averaging a stay of five hours or longer.
- Thirty-five percent of motorists are overstaying the two-hour time restriction in this zone.



### Summary of Weekday Findings

The field observations and review of data indicate that again the imbalance in price between the paid parking garage and the free on-street spaces motivate most drivers to make the economical



**CHARLOTTESVILLE PARKING ANALYSIS FINAL REPORT**  
City of Charlottesville

choice to park for free. Given the general lack of time restrictions in this zone, on-street parking readily meets the need of all-day, workforce parking. As a result, the city investment in the municipal garage is not presently optimized.

Although demand for the unregulated spaces routinely threatens to exceed supply, utilization of nearby two-hour restricted spaces remains significantly lower. The motorists who do park in these spaces most likely include a significant share of spillover users unable to find an available unrestricted space that day as evidenced by the trend of over-staying the two-hour restriction.

As in other zones, the “other restricted” spaces rarely reach capacity. However, utilization in the Southeast Zone increases in the afternoon hours even while demand declines for all other spaces.

**Figure 29      Downtown Southeast Zone Weekday Utilization Table**

<b>Utilization Rates: Downtown Southeast Zone</b>						
Thursday, April 23, 2015 (On-Street) – Wednesday, May 13, 2015 (Off-Street)						
	<b>On-Street</b>				<b>Off-Street</b>	
	<b>2 Hour</b>	<b>Unrestricted</b>	<b>All Other Restrictions</b>	<b>Total, All Restrictions</b>	<b>Water Street Garage</b>	<b>Private Lots</b>
Capacity	54	278	22	354	1019	550
8 AM	22%	21%	36%	22%	11%	
9 AM	65%	91%	41%	84%	42%	43%
10 AM	72%	91%	50%	86%	54%	
11 AM	80%	88%	41%	84%	58%	
12 PM	83%	96%	59%	92%	60%	44%
1 PM	80%	97%	45%	91%	62%	
2 PM	70%	93%	68%	88%	61%	
3 PM	61%	93%	50%	85%	58%	47%
4 PM	43%	57%	41%	54%	55%	
5 PM	30%	59%	55%	54%	45%	
6 PM	69%	59%	73%	61%	22%	34%
7 PM	69%	46%	95%	53%	21%	

**Figure 30      Downtown Southeast Zone Weekday Turnover Table**

<b>On-Street Duration and Turnover Rates: Downtown Southeast Zone</b>				
<b>Wednesday, April 22, 2015 8:00 AM – 8:00 PM</b>				
	<b>2 Hour</b>	<b>Unrestricted</b>	<b>All Other Restrictions</b>	<b>Total, All Restrictions</b>
Capacity	54	278	22	354
Average duration	2.9	6.1	3.0	5.1
Average turnover	2.6	1.4	2.0	1.6
Less than 1 hour	35%	12%	49%	20%
1-2 hours	30%	9%	18%	15%
2-5 hours	19%	23%	18%	22%
5+ hours	16%	56%	16%	43%

### **Southeast Zone: Saturday**

- The unrestricted parking in the Southeast Zone is significantly less utilized on Saturdays than it is on weekdays. Demand is highest in the morning and generally declines over the course of the day, but is never greater than two-thirds occupied. Large numbers of spaces on Avon Street near and under the 9<sup>th</sup> Street flyover go completely unused for the entire day.
- The Water Street garage is generally never more than half full on Saturdays. It peaks in occupancy during market hours (owing to its location on the boundary between zones) and in the evening hours.
- The two-hour restricted spaces closest to downtown attractions reach practical capacity immediately before the restriction is set to expire at 6 p.m. and remain heavily utilized throughout the evening.
- Seventy-six percent of all vehicles stay more than one hour and 53 percent of all vehicles stay more than two hours. Only a small percentage (14%) stay for five hours or more on Saturdays.

### **Summary of Saturday Findings**

On Saturdays, the Southeast Zone is generally a parking spillover zone for the Market and Cultural Zones of downtown. Areas proximate to Main Street have a fair amount of demand while other areas go fully unused. The Water Street garage, although available and accessible to downtown destinations, remains underutilized as motorists opt for the readily available on-street spaces. Given evidence of current demands, the existing two-hour restrictions are generally doing an effective job of managing Saturday demands while still encouraging a sufficient amount of turnover. Abundant options are available for any motorist requiring parking accommodation in excess of two hours.

Both the unregulated spaces and the Market Street garage may be untapped opportunities to accommodate weekend workforce needs or patrons of the downtown entertainment venues.

**CHARLOTTESVILLE PARKING ANALYSIS FINAL REPORT**  
City of Charlottesville

**Figure 31      Downtown Southeast Zone Saturday Utilization Table**

<b>Utilization Rates: Downtown Southeast Zone</b> Saturday, May 2, 2015 (On-Street) – Saturday, May 16, 2015 (Off-Street)						
	<b>On-Street</b>				<b>Off-Street</b>	
	<b>2 Hour</b>	<b>Unrestricted</b>	<b>All Other Restrictions</b>	<b>Total, All Restrictions</b>	<b>Water Street Garage</b>	<b>Private Lots</b>
Capacity	54	278	22	354	1019	550
11 AM	83%	66%	36%	67%	33%	
12 PM	67%	52%	45%	54%	44%	30%
1 PM	50%	49%	36%	48%	34%	
2 PM	57%	43%	45%	45%	29%	
3 PM	59%	34%	45%	38%	22%	28%
4 PM	72%	28%	45%	36%	19%	
5 PM	85%	38%	45%	46%	11%	
6 PM	85%	44%	45%	50%	20%	29%
7 PM	74%	44%	50%	49%	35%	
8 PM	87%	45%	59%	52%	46%	
9 PM	87%	43%	50%	50%	51%	34%

**Figure 32      Downtown Southeast Zone Saturday Turnover Table**

<b>On-Street Duration and Turnover Rates: Downtown Southeast Zone</b> Saturday, May 2, 2015 11:00 AM – 10:00 PM				
	<b>2 Hour</b>	<b>Unrestricted</b>	<b>All Other Restrictions</b>	<b>Total, All Restrictions</b>
Capacity	54	278	22	354
Average duration	2.7	3.4	3.6	3.3
Average turnover	3.0	1.4	1.3	1.6
Less than 1 hour	31%	22%	21%	24%
1-2 hours	30%	20%	28%	23%
2-5 hours	29%	44%	31%	39%
5+ hours	11%	14%	21%	14%



## University Corner

The University Corner study area has an entirely different parking dynamic on both weekdays and weekends. Long stays, on the order of seven to nine hours, dominate the use of the unrestricted spaces, which make up roughly half of the inventory. Occupancy of these unrestricted spaces never dips below 93 percent. Combining all restrictions, space availability is particularly constrained from 9 a.m. to 4 p.m. on weekdays and on Saturday evenings (Figures 33 – 36).

### University Zone: Weekday (school year)

- The University Corner study area has an overall occupancy of 85 percent or greater at all times of day. Demand begins early and remains consistently high throughout the day.
- Over half the curbside parking supply in the University Corner Zone is unrestricted.
- Permit parking exceeds supply, indicating that there are potentially more vehicles permitted than the curbside space of the permit zone can accommodate.
- Even “other restriction” spaces approach or meet their practical utilization capacity. This does not occur in any other zone studied.
- Over one third of all vehicles are staying more than five hours.
- Average duration of unrestricted stays is greater than seven hours.

### Summary of Weekday Findings

Parking demand is consistently high throughout the University Corner area. Although a comparatively small number of spaces are intended for commercial patron use – the 46 two-hour restricted spaces representing less than a quarter of the zone supply – these spaces do not appear to be used by visitors or patrons. These spaces appear to be utilized by persons affiliated with the university (students, staff, researchers, etc.) and occupied for a longer period of time. It is unclear where or how the short-term parkers are accommodated in the zone. Given the evidence that demand routinely exceeds supply, the University Corner area may benefit substantially from a

**CHARLOTTESVILLE PARKING ANALYSIS FINAL REPORT**  
City of Charlottesville

demand-responsive pricing system to ensure that at least a small number of parking spaces are reliably available for patrons and visitors needing to access the University Corner district.

**Figure 33 University Zone Weekday Utilization Table**

<b>On-Street Utilization Rates: University Corner Study Area</b> Thursday, April 23, 2015					
	<b>2 Hour</b>	<b>Permit</b>	<b>Unrestricted</b>	<b>All Other Restrictions</b>	<b>Total, All Restrictions</b>
Capacity	46	31	97	22	196
8 AM	85%	90%	100%	41%	88%
9 AM	87%	87%	98%	68%	90%
10 AM	80%	100%	98%	77%	92%
11 AM	87%	103%	98%	73%	93%
12 PM	91%	100%	98%	55%	92%
1 PM	96%	87%	96%	77%	92%
2 PM	89%	94%	97%	82%	93%
3 PM	89%	97%	97%	64%	91%
4 PM	83%	90%	97%	64%	89%
5 PM	80%	81%	93%	64%	85%
6 PM	89%	84%	94%	68%	88%
7 PM	91%	94%	95%	27%	86%

**Figure 34 University Zone Weekday Turnover Table**

<b>On-Street Duration and Turnover Rates: University Corner Study Area</b> Thursday, April 23, 2015 8:00 AM – 8:00 PM					
	<b>2 Hour</b>	<b>Permit</b>	<b>Unrestricted</b>	<b>All Other Restrictions</b>	<b>Total, All Restrictions</b>
Capacity	46	31	97	22	196
Average duration	3.7	6.6	7.1	2.0	5.0
Average turnover	2.7	1.6	1.6	3.6	2.1
Less than 1 hour	25%	20%	8%	65%	26%
1-2 hours	21%	10%	8%	14%	14%
2-5 hours	32%	18%	24%	14%	23%
5+ hours	22%	53%	60%	8%	37%

### University Zone: Saturday (school year)

- While demand remains substantial throughout the day, particularly for the unrestricted spaces, demand increases during evening hours when it exceeds 90% in the two-hour restricted spaces.
- Forty percent of all vehicles are staying more than five hours.
- Average duration of unrestricted stays is nine hours.

### Summary of Saturday Findings

As it is on weekdays, parking demand is consistently high throughout the University Corner area on weekends. The unrestricted spaces exceed maximum practical occupancy throughout the day. It is expected that instances of illegal parking or circling to look for parking is common as a result. Permit parking too remains high. Two-hour parking is lower during the day on Saturday but increases in the evening.

Given the high demand throughout the area and across restriction types, pricing tools, in combination with transportation demand management benefits, are expected to be the most effective management strategy for this area. The market-based approach of managing scarce goods through pricing may extend to the permit parking areas as well where pricing may manage the demand for permits such that a permit may indicate a realistic expectation of parking availability as opposed to simply being a “license to fish.”

**Figure 35 University Zone Saturday Utilization Table**

On-Street Utilization Rates: University Corner Study Area Saturday, April 25, 2015					
	2 Hour	Permit	Unrestricted	All Other Restrictions	Total, All Restrictions
Capacity	46	31	97	22	196
10 AM	67%	84%	98%	45%	83%
11 AM	80%	87%	97%	77%	89%
12 PM	78%	87%	97%	64%	87%
1 PM	74%	77%	97%	82%	87%
2 PM	78%	77%	99%	64%	87%
3 PM	74%	81%	99%	32%	83%
4 PM	76%	90%	97%	59%	87%
5 PM	87%	94%	101%	50%	91%
6 PM	93%	94%	99%	59%	92%
7 PM	93%	100%	99%	50%	92%
8 PM	100%	100%	97%	55%	93%
9 PM	96%	100%	99%	36%	91%



**Figure 36 University Zone Saturday Turnover Table**

<b>On-Street Duration and Turnover Rates: University Corner Study Area</b> Saturday, April 25, 2015 10:00 AM – 10:00 PM					
	<b>2 Hour</b>	<b>Permit</b>	<b>Unrestricted</b>	<b>All Other Restrictions</b>	<b>Total, All Restrictions</b>
Capacity	46	31	97	22	196
Average duration	3.5	7.7	9.0	1.6	5.4
Average turnover	2.7	1.4	1.3	4.0	1.9
Less than 1 hour	46%	9%	11%	80%	38%
1-2 hours	16%	7%	4%	9%	9%
2-5 hours	15%	21%	10%	7%	12%
5+ hours	23%	63%	75%	4%	40%

## PARKING VIOLATIONS

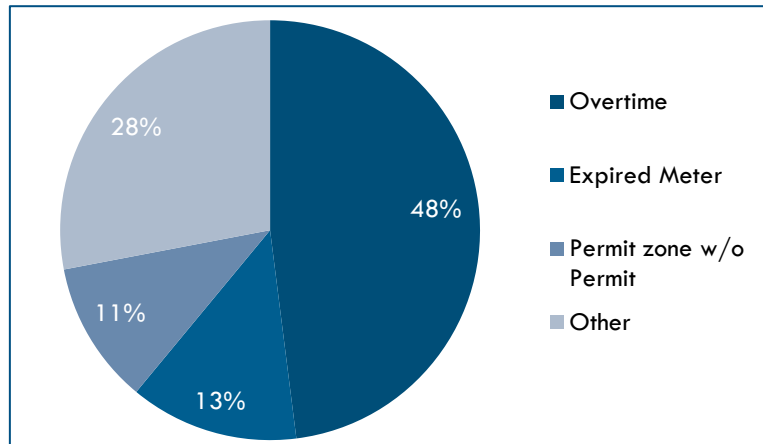
While the majority of on-street parking in the study area is time limited (560 of the 1,001 parking spaces), generally to two hours, these limits are rarely enforced. Through the first quarter of 2015, the City of Charlottesville issued 4,666 tickets citywide, totaling \$105,070 in fines: 1,656 tickets were issued in January (\$35,105), 1,269 in February (\$29,285), and 1,741 in March (\$40,680).

On average, enforcement officers issued 25 tickets per day (over the quarter) in the downtown and 10 tickets per day in the University Corner area.

Overwhelmingly, overtime parking violations were the most common transgression, accounting for 48 percent of the tickets issued from January to March; expired meters in off-street facilities (13%) and parking in a permit zone without the specified permit (11%) were the second and third most common violations (Figure 37 - 38).

The most-ticketed locations during this period were the Water Street garage (11.4% of all tickets) and E. Jefferson Street (9.2%). Multiple other locations within the study area are parking violation “hot zones,” including: Garrett Street (3.7%), University Avenue (3.4%), West Main Street (3.1%), 7<sup>th</sup> Street NE (3.3%), and 3<sup>rd</sup> Street NE (2.8%). In the Water Street lot, virtually all (99%) of parking violations were for expired meters.

**Figure 37 Parking Violation January - March 2015**

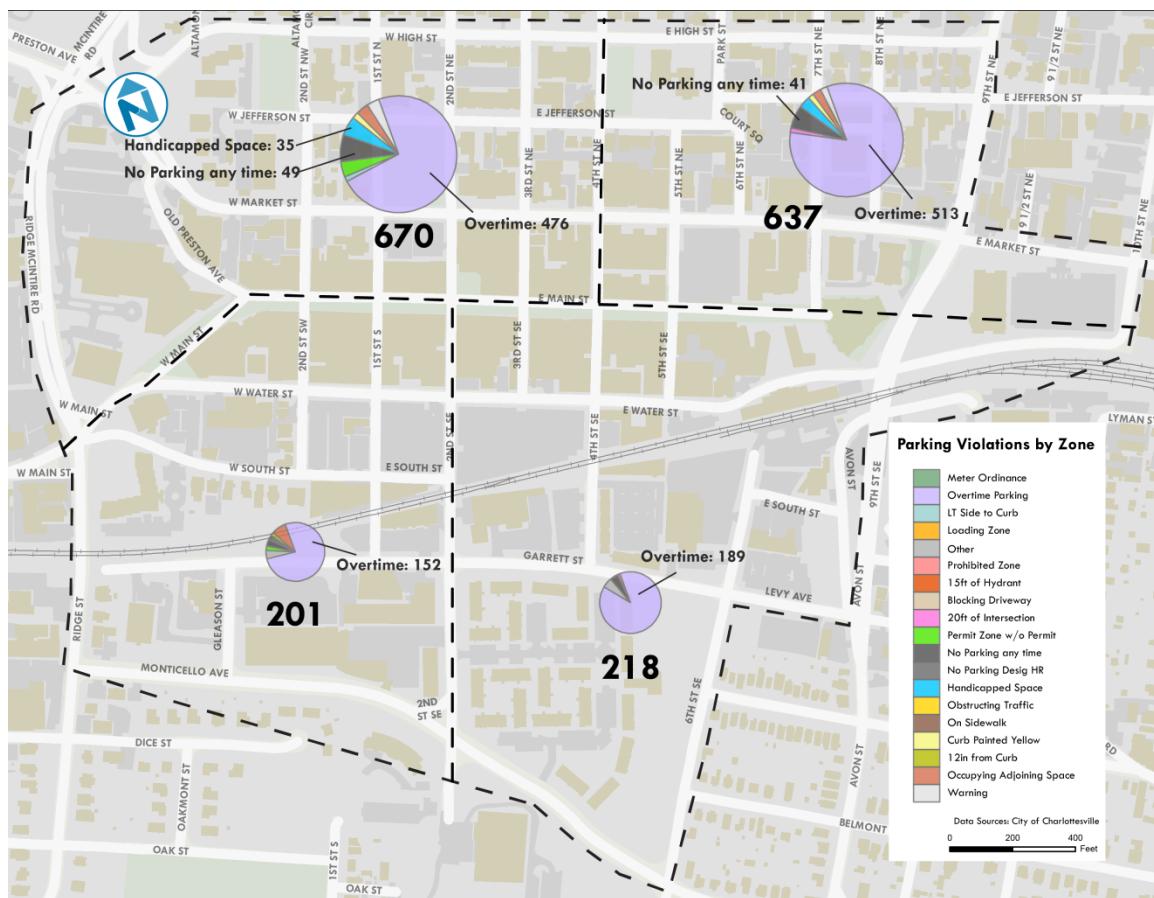


# CHARLOTTESVILLE PARKING ANALYSIS FINAL REPORT City of Charlottesville

Based on street name and quadrant of the city, parking violations were mapped for each zone in the study area (Figure 38). While overtime tickets were the most common parking violation in each zone, the second most common offense varied based on parking regulations in each area as well as the types of land uses nearby. In the University area, “curb painted yellow” and “no parking anytime” dominated after overtime, while in the cultural zone, violations for parking in handicapped spaces and no parking anytime were the next highest.

First-time overtime parking violators are potentially eligible for the city’s parking ticket waiver program, which began in December of 2013. The waiver program’s boundaries roughly mirror the Downtown study area, and extend on West Main Street to 10<sup>th</sup> Street. Only first-time offenders are eligible for the waiver. The intent of the program was to ease frustration of Charlottesville visitors who may be unfamiliar with the curbside regulations and management in the city.<sup>3</sup>

**Figure 38 Downtown Parking Violations by Zone (January to March 2015)**



<sup>3</sup> Charlottesville Parking Ticket Waiver: <http://www.charlottesville.org/Index.aspx?page=3498>

CHARLOTTESVILLE PARKING ANALYSIS FINAL REPORT  
City of Charlottesville

Figure 39 University Corner Parking Violations (January to March 2015)





# STAKEHOLDER SURVEYS

Three unique surveys were created to capture the different needs and perspective of various stakeholder groups concerned about parking in Charlottesville. These surveys were targeted at downtown workers, downtown business owners or office managers, and the general public respectively. Surveys were collected over the course of three months and were made available in both electronic and paper formats. Notices about the survey were posted in downtown Charlottesville and University Corner, highlighted during stakeholder group meetings, and advertised over the city's webpage. Local businesses were provided with business cards to share with patrons to encourage even broader participation.

## GENERAL PUBLIC PARKING SURVEY

Between April 6 and June 8, 2015, 691 people completed the Charlottesville General Parking Survey. This compares very favorably to surveys administered in other communities across the country. While the survey was voluntary and should not be interpreted as a statistically representative reflection of public attitudes about parking, the relatively large response provides a certain level of confidence that the opinions expressed through the survey represent a broad spectrum of opinion.

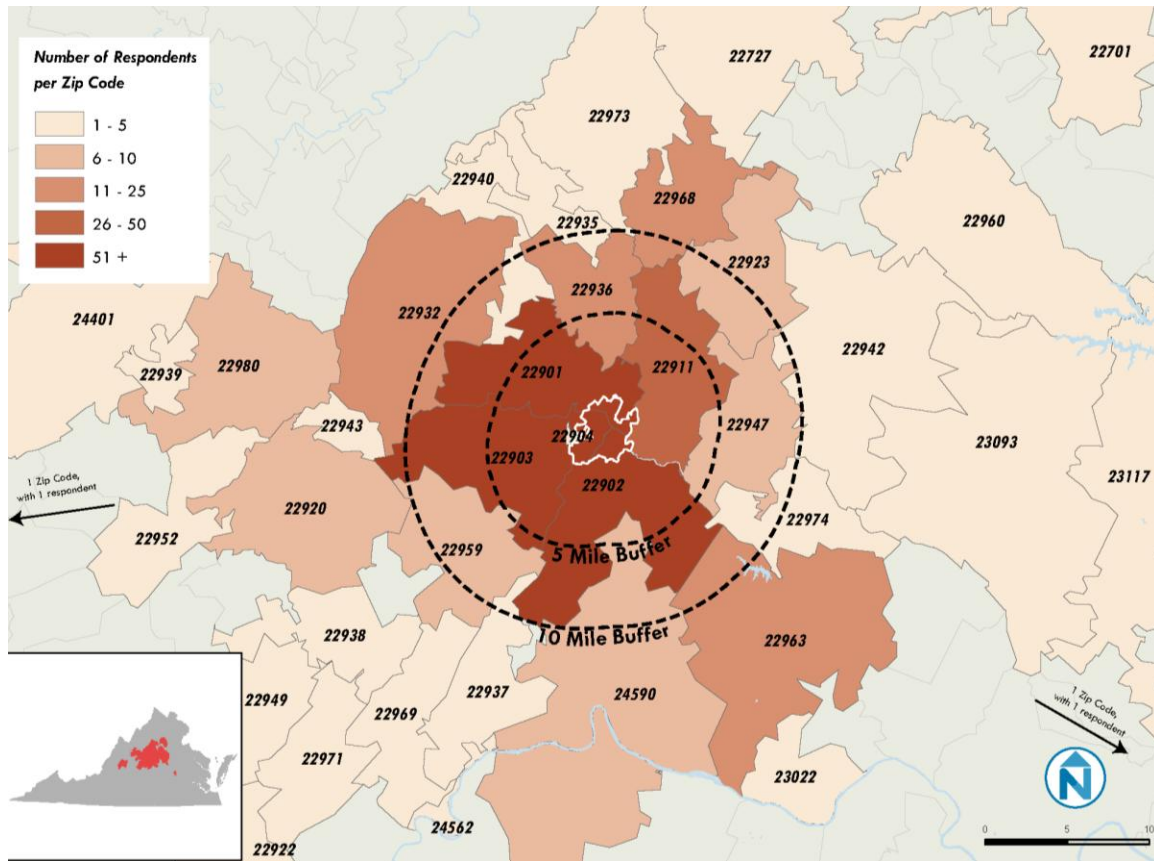
The results of the survey affirm downtown's significance as a local and regional attractor:

- Eighty percent of respondents visit Downtown Charlottesville on a weekly basis (or more), with 50 percent visiting nearly every day or weekend.
- Respondents represented a wide diversity of Charlottesville stakeholders: 31 percent work or go to school downtown; 27 percent come downtown to shop or dine; 10 percent live downtown; and 7 percent come downtown for special events or performances.
- Most respondents were most commonly downtown during weekdays, followed by weekends during the day and weekend evenings.

Driving is the most common way to get downtown: 87 percent of respondents "typically" drive there, however, 34 percent often or occasionally walk. Only 19 percent take transit, use a taxi or carpool at least on some occasions.

Members of the public who responded to the survey were asked for their home zip code in order to determine the distance they travel to reach downtown Charlottesville. The greatest proportion of survey respondents live in one of three Charlottesville zip codes: 22902, 22903, or 22901. However, many people reported living in a zip code greater than 10 miles from Charlottesville, including Richmond, Lexington, and Culpepper (Figure 40).

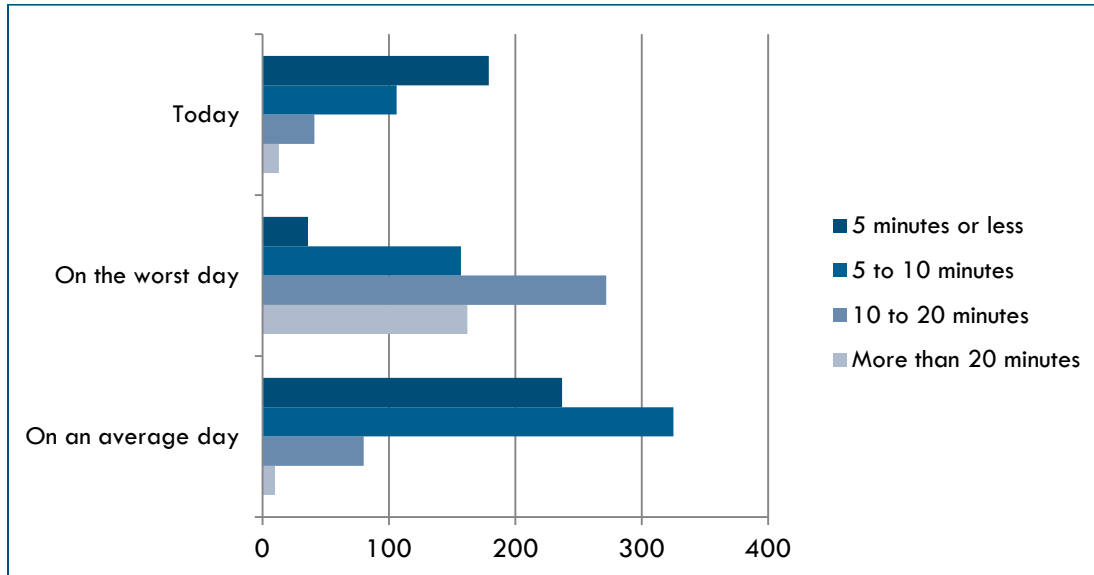
Figure 40 Home Zip Code of Survey Respondents



When driving downtown, survey respondents are most likely to park on street, with 75 percent answering they “typically” or “occasionally” park at a curbside space. The Market and Water Street parking garages are secondary options, with the Market Street garage being slightly more popular than the Water Street garage (47% and 43% respectively). Twenty-six percent of respondents expressed no preference between parking on or off street but rather usually park wherever is most convenient to their destination.

Time spent looking for parking can be a significant cause of congestion in downtown districts, but in Charlottesville most respondents indicated an ability to find an available parking space without spending a considerable amount of time searching. Figure 41 shows on an average day, 86% of respondents find parking in 10 minutes or less; on the worst days, 42% spend 10 to 20 minutes, while 25% report spending more than 20 minutes searching for a parking space. A little more than half (53%) of respondents indicated that on the day they completed the survey they spent five minutes or less finding a parking space.

Figure 41 General Public Length of Time to Find Parking



The availability of parking – being able to find a space when they need it – was rated as the most important factor by respondents (3.9) followed by the cost of parking (3.75) and information about where parking is located and how to use it (3.28) and having adequate time/removal of parking time limits (3.15). Reducing spill over parking effects on neighborhood streets was the least important consideration for the general public (2.0).

When asked about paying for parking, 63 percent of survey respondents indicated they would prefer to pay a small amount for parking to avoid the risk of getting a ticket, while 37% would prefer free parking and risk being ticketed and fined. There were 101 additional comments to this question, such as:

*Please remember “small amount.” I think the garage’s charge of \$2.50 per hour is high, especially when one isn’t able to get a validation from local businesses.*

*I would be more encouraged to come downtown if I had a bus that went to the Downtown Mall, not just UVA. Asking me to wait another 15 minutes for a bus isn't always a good option for me. I would be willing to pay the same amount as bus fare for parking.*

*If I can’t find a free parking spot, I pay to park rather than park illegally or risk a ticket.*

The maximum amount respondents expressed they would be willing to pay varied widely (Figure 42). One-third (33%) of survey respondents would be willing to pay 50 cents per hour, 30% would be willing to pay \$1.00 per hour and 12% were willing to pay \$2.00 or more per hour. However, 21% indicated they will not travel downtown if parking were not free. There were 95 comments to this question, such as:

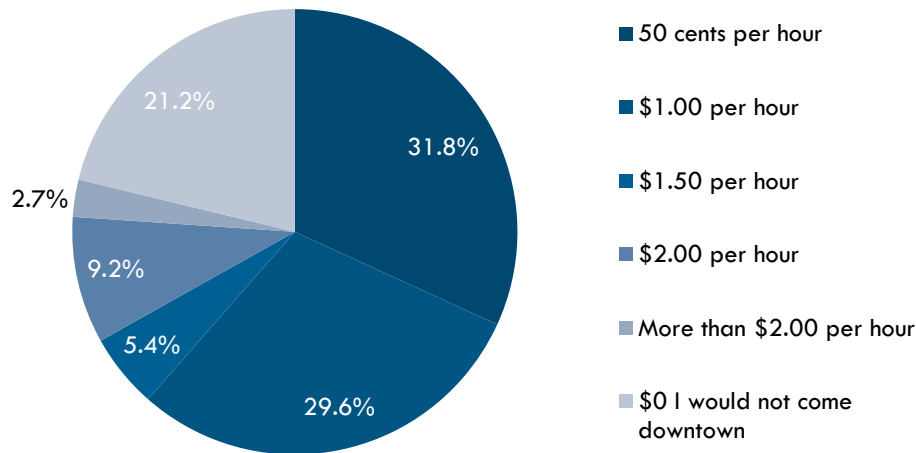
*The amount needs to be enough to deter the nuisance of all day parkers and there also needs to be a good all day option for downtown workers too.*

*Frankly, I’d just park further out and walk.*



*I would be willing to pay more for garage parking when/if I needed it. If I hunt for a street space and still have to pay, I would not want to pay much if at all.*

Figure 42 General Public Maximum Willingness to Pay



Parking validation appears to be widely recognized; 86% of respondents are aware of the downtown parking validation system and have used it before, 8% know it exists but have never used it. Only 6% of respondents are unaware that parking validation is an option.

Regarding public perceptions of the availability, cost, location, and ease of parking:

- **Two-hour parking limits are inflexible:** 61% of respondents felt that two hours is insufficient to do what they need to do downtown.
- **Parking and walking is accepted:** 87% of respondents agree or strongly agree that they are “willing to park a block or two away from my destination.”
- **“Shuffling” disruption is minimal:** Only 23% of respondents indicated that they routinely move their car in order to stay longer than 2 hours downtown (“the two-hour shuffle”). This is roughly consistent with field observations.
- **Limited parking violations:** Just 14% of respondents responded that they had received more than one parking ticket downtown over the past year. This may indicate that most users adhere to the parking regulations or may be an indication of weak enforcement or a combination of both.
- **Dissatisfied with parking downtown:** 52% of respondents indicated that they are generally dissatisfied with the current state of parking downtown. This is in line with the findings of the Community Livability Report for Charlottesville in which only 21% of respondents indicated a satisfaction with parking in the city.

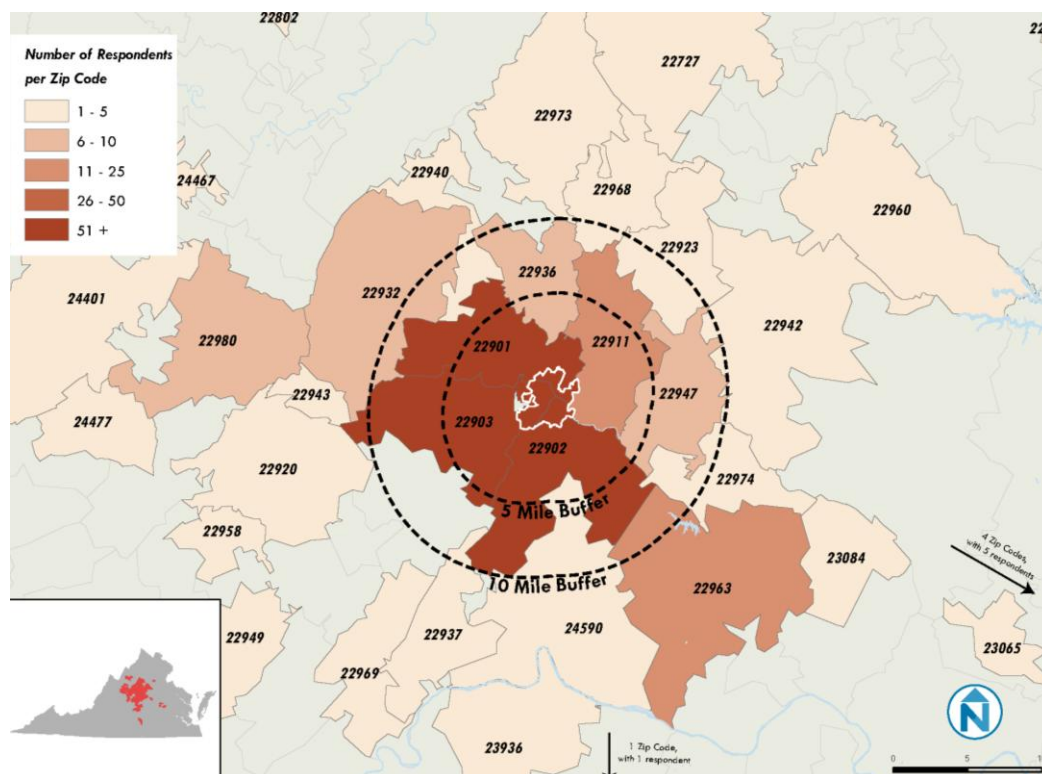
## WORKFORCE PARKING SURVEY

Between April 14 and June 8, 2015, 357 employees completed the Charlottesville Workforce Parking Survey. Of these, 93% work in Downtown Charlottesville, while 2% work in the University Corner. The vast majority of respondents (94%) typically work Monday through Friday, with only 24% of employees indicating they work on Saturdays, and 15% responding they work on Sundays. Seventy percent of survey respondents are assumed to be full time workers (working four to nine hours per day). 27% work more than nine hours. Most (85%) arrive to work between 6 a.m. and 10 a.m.

Nearly 80% of respondents work in the traditional office sectors: 72% are professional office workers, and 7% are employed by institutions (e.g. hospital, university, school, place of worship). Bar, restaurant, or other food and beverage service workers accounted for 12% of employees. Retail sales (3%) and personal services (1%) employees are likely underrepresented among respondents.

Employees were asked for their home zip code in order to determine the distance of their commute to work. The greatest proportion of responding workers live in one of the three Charlottesville zip codes: 22902, 22903, or 22901. Forty-seven downtown employees completing the survey reported living in a zip code greater than 10 miles from Charlottesville (Figure 43).

**Figure 43** Home Zip Code of Downtown Employees Surveyed

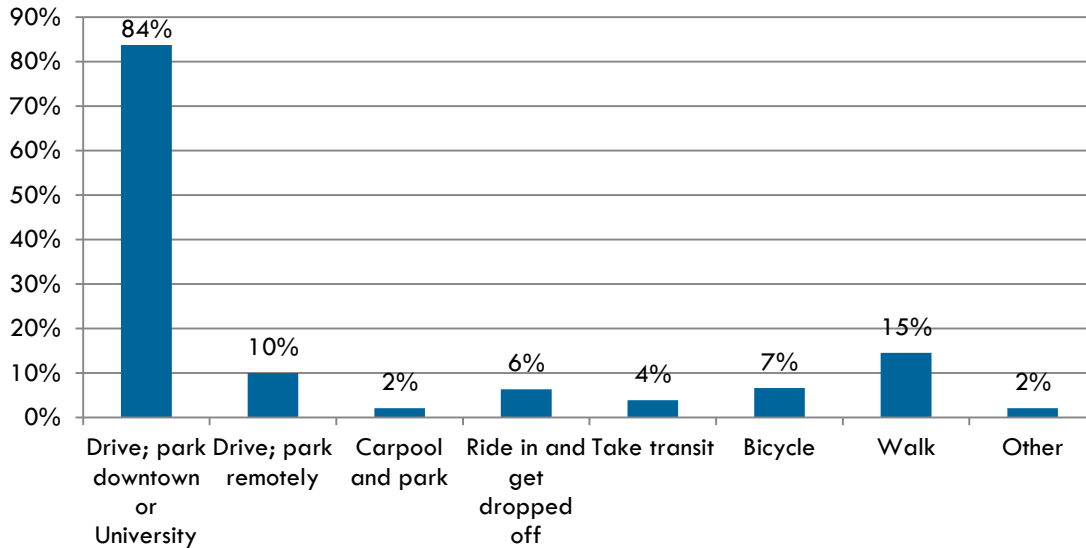


## Commuting

Driving (or being driven) is the most common method for getting to work among downtown employees. Eighty-four percent of respondents drive and park downtown or in the University Corner, 10% indicate they drive but park at facilities outside of downtown or the Corner, and 6%

ride as a car passenger and are dropped off at their destination. A high proportion, 15%, indicated that they usually walk to work downtown or at University Corner. This is comparable to the rate in many larger cities including Washington, DC (Figure 44).

**Figure 44 Workforce Commute Mode Share**



When workers in downtown and University Corner drive to work and park, 58% utilize on-street parking. Nearly 30% park in a private garage or lot; 22% park in a public garage; and 12% use other facilities such as under Belmont Bridge, friends' houses, and the Omni Hotel parking garage. When employees drive to work, 36% typically pay for parking, 41% do not, and the remaining 23% pay on occasion. On average, employees paid \$11.53 per day, and \$67.73 per month to park (when they utilized paid parking).

Most people cited commuting efficiency as a major reason they drive to work (78%). However, the ability to intersperse additional trips before or after work (52%) was another major consideration. Additional needs influencing driving behavior included the need for a private vehicle for business/work purposes (18%) and the need to work late (21%). Only a relatively small number (17%) indicated that they drive simply because they like to; indicating that most would entertain other commuting options if they were efficient, convenient and cost-effective.

When asked what other modes would be viable for the commute to work, 31% and 28% responded that they could walk or bike, respectively. This is a substantial number and indicates that many Charlottesville workers reside a relatively modest distance from their work location. Of the 71 people who said that they would be willing to walk to work every now and then, 41 live in zip code 22902; 16 live in 22903; 9 live in 22901; 3 live in 22911. A significant proportion (40%) would consider carpooling while 22 percent consider transit a viable option, at least on occasion. About half the respondents did not indicate any commuting alternative would be viable for them.

Of the employees that selected walking as a "viable" commuting alternative, currently 71% "commonly" drive to work – generally so they have the ability to perform errands before or after work (77%). Seventy-six percent of these employees also receive pre-tax parking deductions from their employers, which likely incentivizes their choice to drive to work; however, 62% are "interested" in their employer providing a cash bonus for not driving and parking at work.

## Parking

Half of survey respondents reported that employee parking is not provided at or near their workplace, while 32% had some provided and 17% had parking provided for most or all of the staff at their workplace.

Professional office employees are more likely to have access to nearby parking at their place of work (60% had parking available for some staff). Proximate parking is largely unavailable for bar, restaurant, and retail employees: 92% indicate that no parking is available at (or near) their place of work.

Only 15 percent of employees indicate that they routinely (“multiple times per week”) engage in the “two-hour shuffle” while another 33% do it “once in awhile.”



## Commuter Benefits

Pre-tax parking deductions are the most common commuter benefit, received by 69% of employees; 17% are offered a free transit pass, 16% receive bicycle benefits (reimbursements for bicycle-related expenses), 12% have access to bicycle parking and/or shower and changing facilities, and 11% are offered free remote parking,

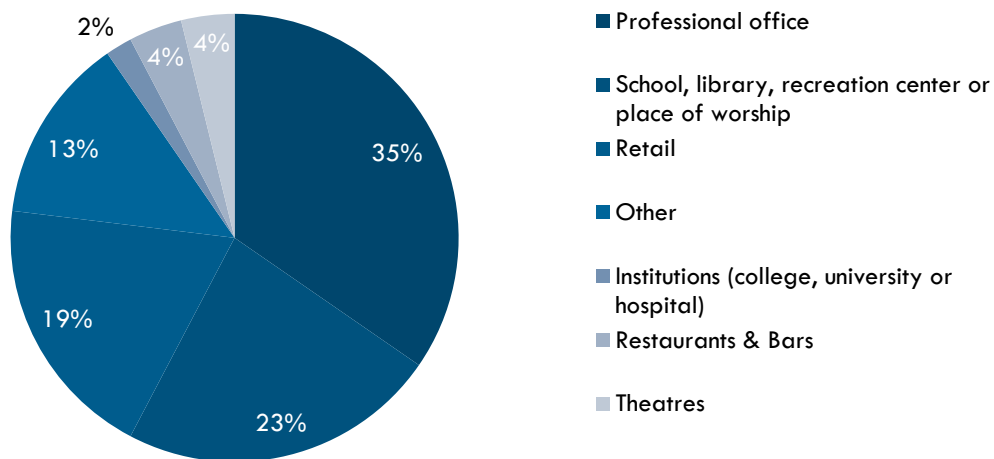
When asked which benefits they would prefer, free remote parking (50%) and a cash bonus for not using parking (44%) were the most popular. A number of other benefits were also well

received including: live-near-work home purchase or rental assistance (28% indicated an interest), pre-tax parking deduction (25%), bicycle benefits (21%), guaranteed ride home (20%), secure bicycle parking and/or shower and changing facilities (19%), and/or a free transit pass (19%). A relative minority of respondents indicated an interest in pre-tax transit deduction (9%). Although 40% of respondents indicated that carpooling was a viable commuting alternative, only 8% were interested in preferred carpool/vanpool parking as a commuting benefit.

## BUSINESS OWNER PARKING SURVEY

Between April 14 and June 8, 2015, 53 business owners and institutions completed the Charlottesville Business Parking Survey. Of these respondents, 35% were from professional offices; 23% were from schools, libraries, recreation centers, or places of worship; and 19% represented retail businesses (Figure 45). Businesses who indicated “other” included an engraving shop, two hotels, a preschool, and a TV station.

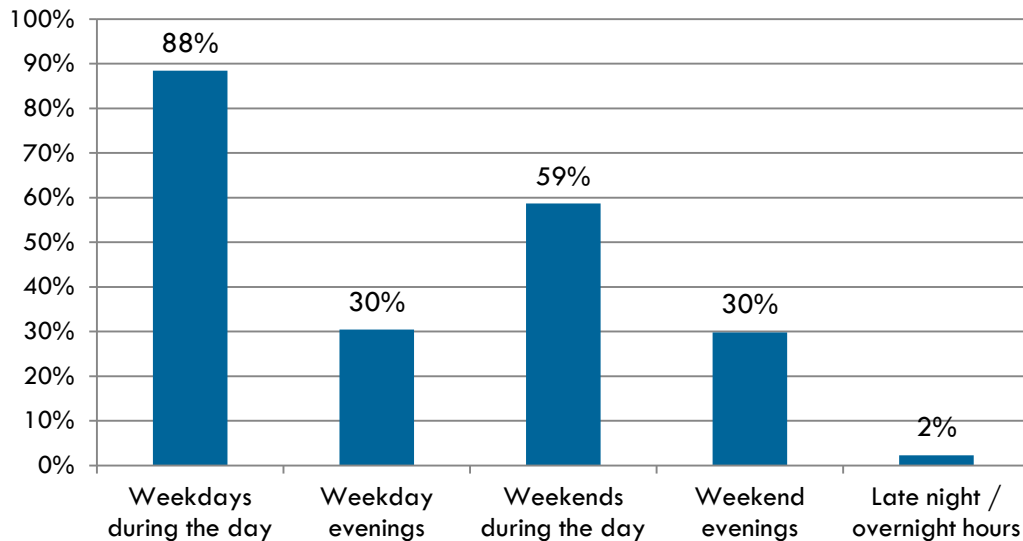
Figure 45 Survey Response by Type of Business



As expected with this mix of commercial and institutional uses, 88% of the survey respondents (46) reported being busiest and having the most people at their place of business during weekdays during the day. This was followed by weekends during the day, where 67% of the survey respondents (27) reported being busy or very busy, though evenings were also popular on weekdays (14) and weekends (14). Few indicated any amount of late night activity (Figure 46).



**Figure 46**      **Busy or Very Busy Downtown Business Hours**



## Employee Parking and Transportation

The employers reported a mix of full-time, part-time, and volunteer workers at their downtown businesses. There was an average of 12 full-time employees, 7 part-time employees, and 18 volunteers or other types of workers at each place of business. Across all survey respondents, there were 410 full-time employees, 186 part-time, and 270 volunteer or other.

Employers estimated that on a typical day, 88% of their workers drove to work. This is consistent with the 84% mode share reported by employees.

The business owners and managers reported that the majority of their employees arrived for work between 7 and 10 a.m. each day. A significant number reported for work midday between 10 a.m. and 2 p.m. with a lesser share arriving after 2 p.m. The majority of employees worked 6 to 10 hours per day (89%).

Fifty-eight percent of survey respondents (19) reported providing some employee parking, and 21% (7) reported that they provide sufficient parking for all employees. Seven (21%) provide no parking at all.

For those that do provide parking, 47% provide it near, behind, or adjacent to the place of work and 47% provide it at one of the downtown public parking facilities. Three percent provide parking at remote facilities outside the downtown.

The majority of businesses rent, lease, or pay permit fees in order to provide some (6) or all (14) of employee parking. Only 13 businesses reported not paying for employee parking. Of those that pay for employee parking (17), the average cost per space per month was \$73. (As reported earlier, employees reported paying slightly less at just \$68 per month.)

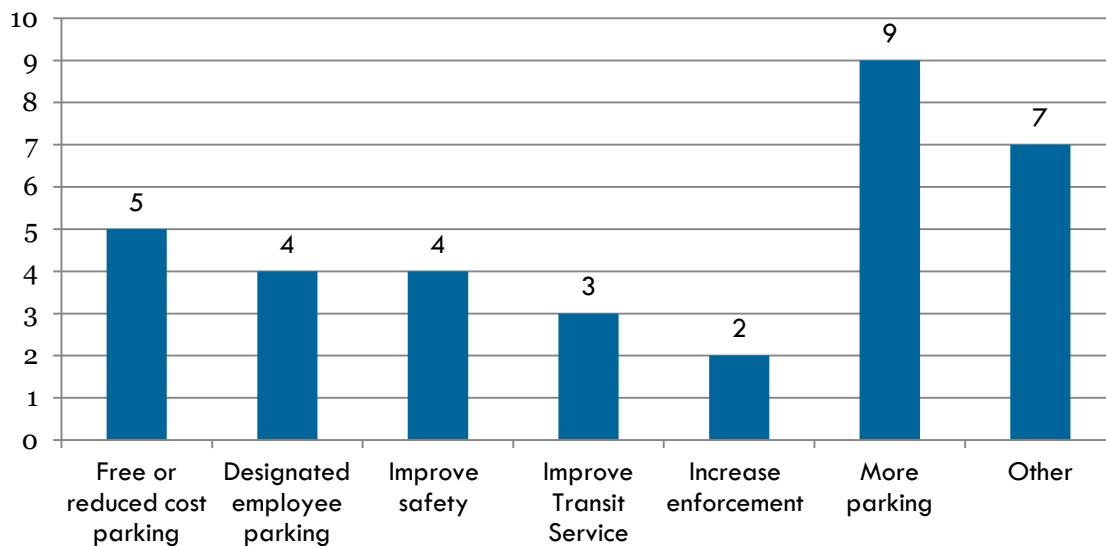
About half of businesses reported that employees pay either the full (14) cost of parking or a portion (2) of parking costs. Seventeen businesses reported that although they pay for parking, they provide it free to employees.



When asked for recommendations to improve employee parking downtown, just under one-third of employers recommended increasing the supply of parking (Figure 47). There was a broad spread of other recommendations including free parking programs, better safety, and improved transit service. A variety of diverse recommendations were provided in the “other” category.

Of the 53 responding employers, only 9 indicated that they provide any commute benefit, aside from parking, to their employees. Three have designated preferred parking spaces for carpools. Two provide secure, sheltered bicycle parking. One offers a Guaranteed Ride Home, and one provides a free transit pass, parking cash out and a Guaranteed Ride Home.

**Figure 47 Employer Suggestions to Improve Employee Parking**



## Customer Parking

Seventeen of 53 businesses reported providing free parking with validation to customers. Thirteen businesses did not provide free parking and two provided free parking without validation. When asked how important the validation program is to their business, 13 employers said it was very important while seven said it was not important. Some employers noted:

*“We cannot afford to pay for parking for visitors. The cost of parking for staff is reaching a point where we might have to cut back.”*

*“Just recently stopped validating after 17 years of doing so. Can’t afford it anymore because the business economy is terrible and we are struggling to stay alive. Also, the price of validating has gotten very high.”*

*“I’ve been doing it for six months and have seen no change in revenue. As I suspected (for the last five years) I’m paying for people who have other means of getting the parking validated/paid for.”*

*“We have the ability to validate a parking ticket from the garage, but have stopped using it on a regular basis.”*

**CHARLOTTESVILLE PARKING ANALYSIS FINAL REPORT**  
City of Charlottesville

When asked about customer perceptions about parking, 18 businesses reported hearing customers complain about parking and 11 felt that parking was difficult to find in Charlottesville (Figure 48). Businesses noted:

*“Parking in lots is expensive. The new credit card-only lots are highly disliked.”*

*“Realistically ticketing is a joke –people seldom get tickets and the few that people do get are cheaper than parking daily in the garage.”*

Several businesses commented on perceptions of crime and safety:

*“As to crime on the mall, there is a perception... that the mall is a dangerous place. It might not be true but I have been told by numerous customers that they just won’t come to the mall after dark.”*

*“When our clients eat out, they invariably complain about parking and [people] on the Downtown Mall that approach them.”*

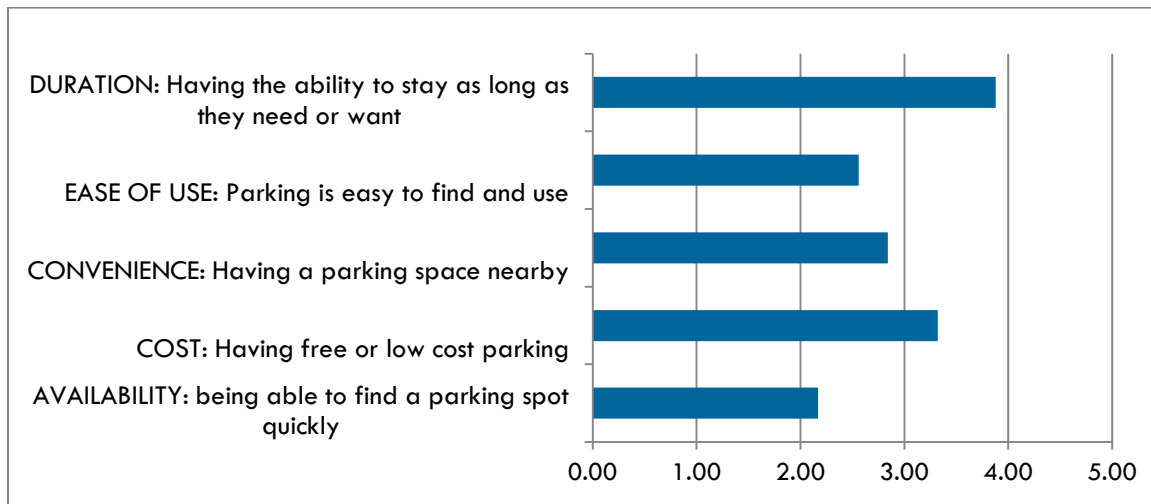
*“Perception and reality are not the same for our customers. Some feel walking from the garage to our business is a long way, while others do not. Lots of customers complain about parking but again perception is not always reality. The one thing that is universal for all customers and employees is the lack of police presence on the mall when our events let out and employees walking to their cars. The garages would have more customers if they knew there was someone watching the garage and patrons getting to the garage and in their car safely.”*

**Figure 48 Employer Perceptions of Customer Parking Concerns**

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Don't know
Customers can generally find parking fairly easily.	0	5	8	8	11	0
Customers frequently must walk a long distance from parking to our destination.	5	9	10	8	1	0
Customers often complain about parking in Charlottesville.	18	8	2	3	2	0
Most customers park in the public parking facilities rather than on-street.	3	7	11	8	2	2
The risk of crime in Charlottesville is a significant concern for my customers.	8	9	5	9	1	1
Ticketing is a major issue/frustration for my customers.	6	9	8	8	1	0

When asked to rank the following parking factors in order of importance to customers, businesses selected both duration (the ability to stay as long as they needed) and cost as being most important (Figure 49). Interestingly, businesses thought that availability was the least important factor while the general public (their customers and workers) ranked availability as the single most important factor and duration an issue of lesser concern (after cost, ease of use, and congestion).

**Figure 49 Critical Parking Factors for Customers**



When asked for recommendations to improve customer parking downtown, business owners generally advocated increasing the supply of parking and reducing the cost of parking downtown. Responses in the “other” category include:

*Longer duration street parking*

*Open garages 9 a.m. on Sunday for restaurants and shops*

*Stripe all street side parking so that drivers use the spaces efficiently*

*Offer flat rate parking for patrons of events*

*Stop monthly parkers from using all the spaces on the lower floors*

*Provide parking "permits" or "passes" for identification of the vehicles of Saturday worshipers so they do not have to fear being ticketed while attending services*

*Evaluate the need the number of handicap space*



# PARKING AND TDM RECOMMENDATIONS

Effective management is the best and most cost-effective way to optimize parking supply and can have the effect of increased parking availability and better access to downtown employment and destinations.

Parking is best managed pro-actively as a critical component of the City of Charlottesville downtown plan. Many cities are now adopting parking management elements in concert with marketing and development efforts. In the Downtown and University areas, as well as throughout the City of Charlottesville, the following alternatives are recommended for further exploration as components of an integrated parking management approach.

But parking management must be combined with overall transportation demand management – providing commuters, visitors and others with the information, incentives, and convenience necessary to utilize the abundant other resources the City of Charlottesville has to offer. Promoting commute and travel alternatives will significantly relieve pressure on parking resources, better utilize other investments the city has made, support the objective of a vibrant walkable downtown, and improve Charlottesville as an attractive and sustainable place to live, work, play and learn.

## OPTIMIZE RESOURCES

### Create a Department of Parking

Create a City Parking Department, or a Parking Division within an existing City department, to provide full-time management of the parking system. This should include oversight of the parking enforcement, performance evaluation, customer relations, dynamic rate management, and improved maintenance and modernization. While this requires additional staff costs and management of the initial set-up, the new functions would provide central oversight of the City parking system and facilities. In many cities, parking departments are self-funding through revenues from fees and penalties.

### Adopt Demand-Responsive Pricing

In general, curbside spaces near to downtown destinations are preferred over parking in lots or garages. Not only are on-street spaces often more proximate and convenient than off-street facilities, but oftentimes people feel safer parking at the curb rather than navigating a parking garage.

In simple terms, curbside spaces are typically more valuable than off street spaces - however the current pricing structure in Charlottesville does not reflect this market reality. Off-street parking generally requires payment while parking at the curb is free. The impact of this imbalance is

readily evident – competition for curbside parking spaces is fierce in some locations even when off-street facilities in the immediate vicinity have a substantial unused supply.

The city should restructure parking fees to better align parking price with parking demand and comparative value. The more valuable spaces – curbside spaces proximate to major destinations – should be priced higher than the hourly rate of the more remote off-street spaces. The transient rates for both on and off-street spaces should be priced in response to demand – where and when demand is high, parking rates should be set to maintain a limited amount of availability. If there is unused parking – on the periphery of the Outer Zone or even on the upper decks of the Water Street Parking Garage – pricing should be reduced or eliminated. Revenue should never be the objective of public parking. Rather, the objective must be to balance supply with demand to provide reliable access to downtown businesses and jobs.

With the creation of the recommended Parking Department, all parking revenue, whether from on-street spaces or off-street facilities, would be pooled enabling the transfer and sharing of parking costs and benefits.

While several Downtown stakeholders indicated a need for free or very low cost parking to enable them to continue to work or patronize businesses or institutions downtown, many indicated that they would be willing to walk slightly further from their destination in exchange for this lower cost. It is reasonable, therefore, to price curbside parking in high demand areas at a rate sufficient to manage demand while preserving free or low cost parking on the outer blocks.

The same principle holds true for the parking garages. Most users will park in the first available parking space, often leaving the upper levels of the garage empty and unused. Meanwhile later arriving mid-day patrons, many of whom have short duration transactions to make downtown, are forced to spend additional time driving round and round the ramps to reach the upper floors and free parking spaces. Parking garages can be structured to encourage longer duration parkers to utilize the upper floors while lower floors are reserved for shorter transactional parkers. This may be relatively simply accomplished by prohibiting parking on the lowest levels until after 10am. If discounted monthly permits are offered, these users too may be required to display a placard or decal and park in the uppermost locations.

## **Revisit Regulations**

The field observations found several locations where the existing curbside regulations are failing to adequately respond to or manage demand. The time limits in some zones, principally the Market Zone and the Southeast Zone, serve little purpose other than to force downtown users to engage in the “two-hour shuffle.” Where demand is relatively light, parking duration should be extended (e.g. 4- or 6-hour parking). Some of the existing short term 2- and 1-Hour parking zones, particularly in the Cultural and Government Zones, should be converted to metered/paid curbside parking. Combined with reduced or free parking options in the municipal garages this should have the effect of moving longer duration parkers into the off-street facilities, while maintaining the affordability of access to downtown jobs and destinations and freeing up coveted curbside spaces for less price-sensitive patrons or shorter term users.

Current restrictions on the duration of parking are misaligned with need, and artificially – potentially unnecessarily – truncate parking downtown. Figure 50 shows the average parking duration of people parking on-street downtown. While the majority of the spaces in the Cultural and Government Zones are generally restricted to two hours or less, there is significant use of on-

**CHARLOTTESVILLE PARKING ANALYSIS FINAL REPORT**  
City of Charlottesville

street parking for long-term parking in both the Southeast and Market Zones. In the University area, parking duration is longer than most of downtown (Figure 51).

Parking duration for high-demand locations can be better managed through pricing strategies while lower demand areas can permit longer parking periods at little to no cost. This serves the dual benefit of enabling people to select the spaces that best meet their needs and priorities (whether cost or convenience) while reducing the negative environmental impacts of auto “cold starts” and vehicle miles traveled associated with the unnecessary shuffling of autos in response to time restrictions that do not align well with drivers’ needs.

**Figure 50 Average Downtown Parking Duration**

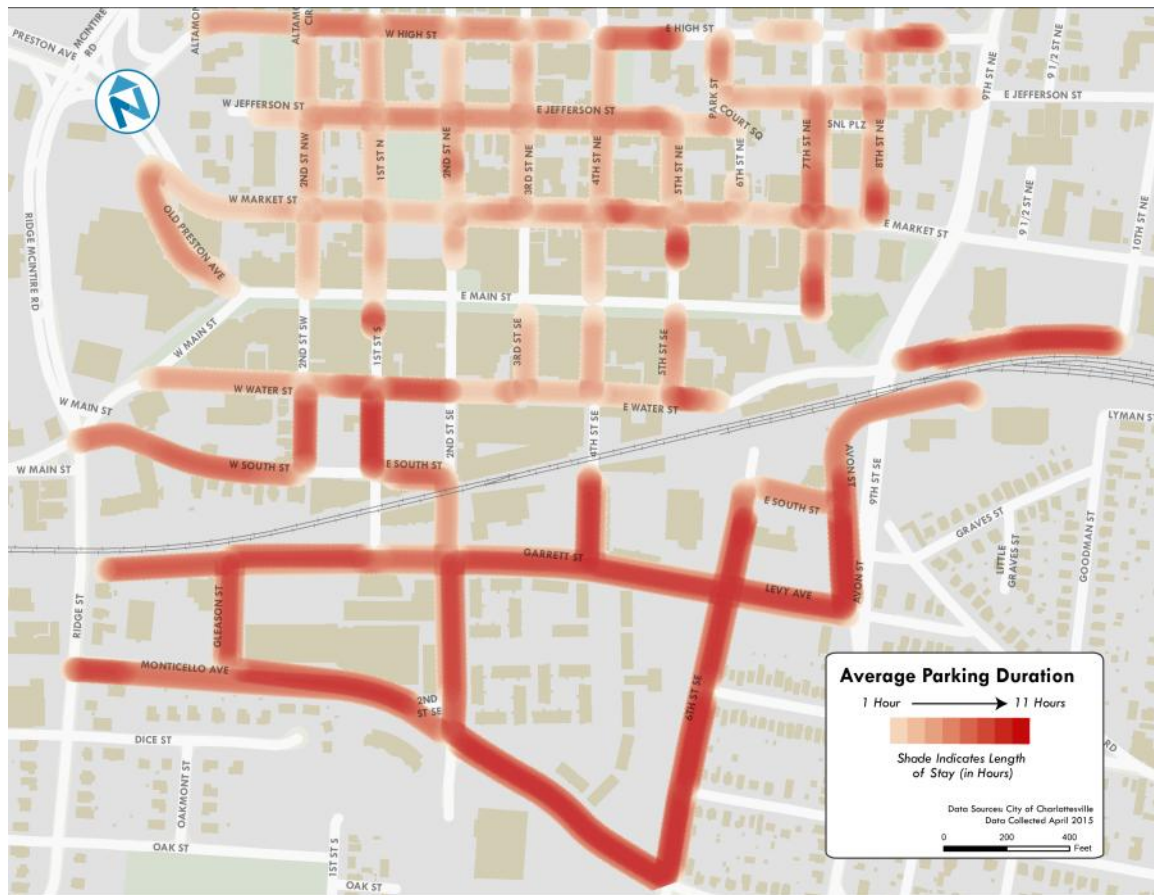
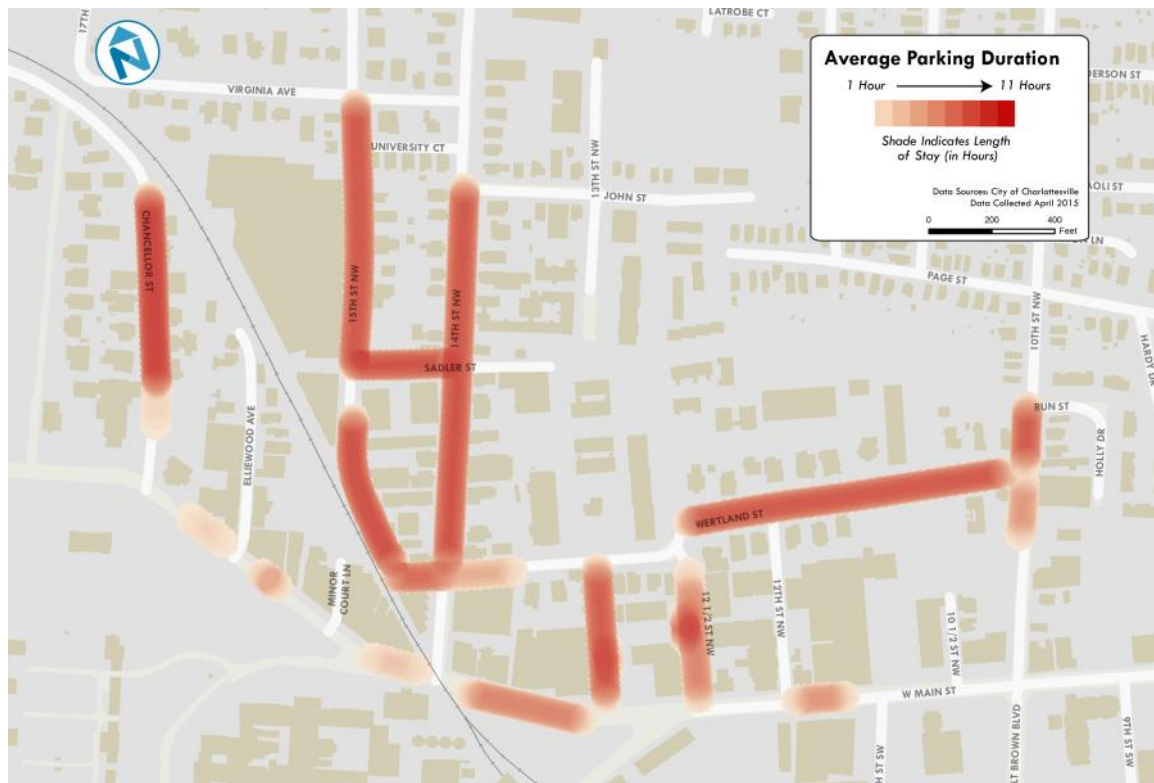




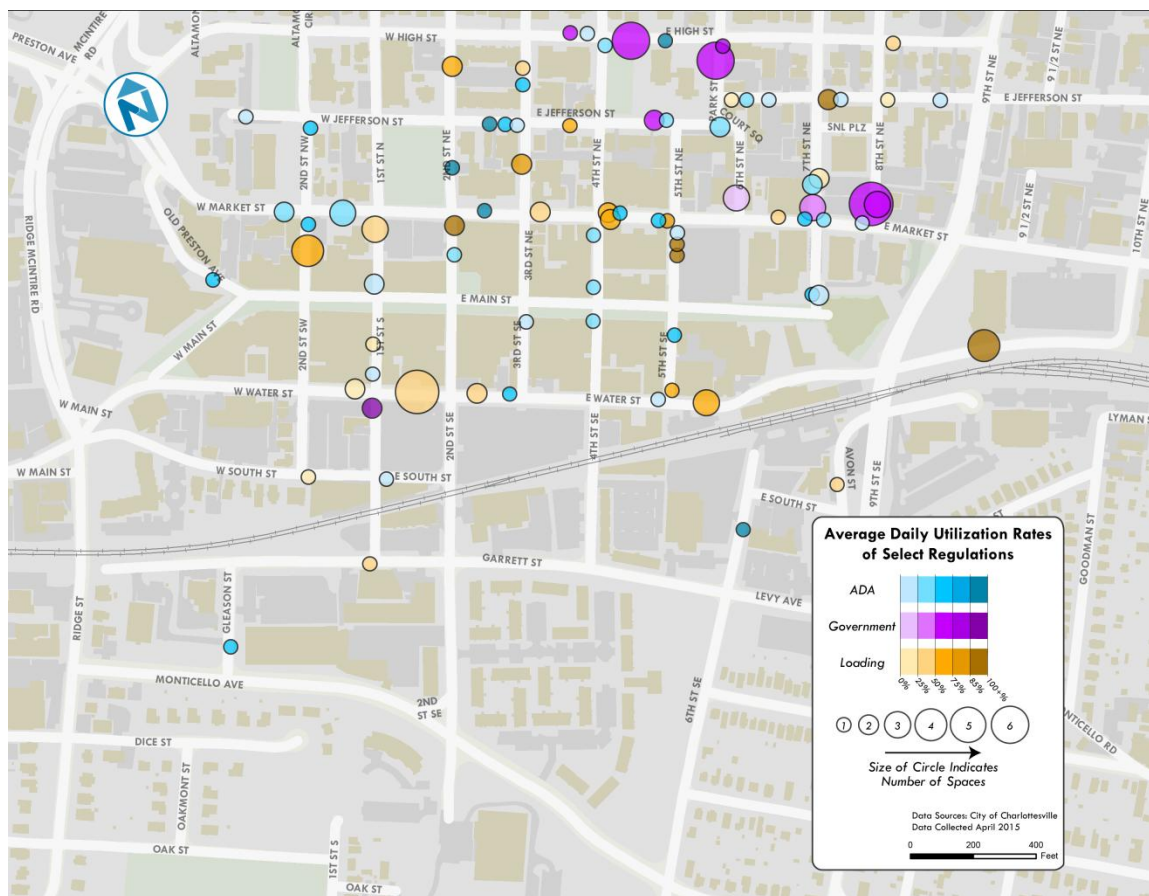
Figure 51 Average University Corner Parking Duration



Temporal regulations should better align with the varied periods of demand. In many locations of the downtown, regulations remain in effect long after demand begins to fade. In other parts, regulations cease even while demand remains high. For example, demand in the Cultural and Southeast Zones persists or increases in the evening hours even after regulations expire at 6 p.m. Meanwhile, in the Government Zone, time restrictions remain in effect in the later afternoon even when demand has ebbed. Similarly, in some Downtown areas, regulating curbside parking on Saturdays is necessary while in other areas, there is generally little need to do so. Regulations can be more carefully tailored to respond to the variable conditions and surrounding uses. If metered curbside parking is enacted, there are many sophisticated parking systems available that permit a municipality to vary the price of parking depending on the level of demand in that area for that portion of the day (called “demand-responsive pricing”).

A thorough review of loading zones and parking for persons with disabilities appears to be warranted. Figure 52 shows the average daily utilization rates of special parking regulations. With the exception of the University Corner area, these zones are generally underutilized. The current signage and management of loading zones may lead to confusion and thus lower utilization of these spaces. Convenient and accessible disabled parking is both a necessity for and a value to Charlottesville. These parking spaces should be maintained in sufficient quantities and locations to meet the need. Continued modernizations to make more of the parking supply accessible to persons with disabilities and better management to ensure the reliable availability of spaces will ensure convenient and accessible parking for people of all abilities and will diminish the need for specific reservation of spaces.

Figure 52 Average Daily Utilization Rates of Parking Regulations



## Make Parking Easy

Parking in downtown Charlottesville is complicated. Regulatory signage is complex and confusing and could be streamlined for better legibility and clarity. While wayfinding to the two major garages is generally fairly good, information about other parking locations, parking rates and the availability of spaces is harder to find. Dynamic data tracking and parking apps could augment existing systems.

If paid curbside parking is enacted, payment must be simple and convenient. Smart meters should be utilized to enable motorists to pay with a variety of media including coin, credit or debit card, and other “smart cards” (cards capable of being integrated with the transit system, car sharing system, and/or bike sharing system). Smart meters may be either smart single-space meters (similar to traditional coin meters, but accepting a variety of payment media and networked to enable monitoring and programming) or smart multispace meters, where a single payment kiosk can manage 10 or more parking spaces on a block face or within a compact area. Multispace meters may be either “pay and display” (requiring the user to pay at the kiosk and then return to her car to display a payment receipt), “pay by space” (requiring the identification of each individual curbside space) or pay by license plate (where a vehicle tag must be identified for legal parking). Pay-by-Phone is another system that adds convenience to the parking system. Each technology has benefits and deficiencies that can be further discussed at a later date.

A holistic map or, preferably, smartphone app providing information on the various parking options and the costs, time limits, and duration of restrictions would help workers and patrons make better decisions about selecting parking options that best fit their needs and optimize all the parking resources of the downtown (Figure 53). This app should be maintained by the Parking Department to ensure information is kept current and correct. Ideally the app should include public parking available in private lots and garages as well. When and where possible, the app should provide real time information on parking availability to limit the amount of time motorists spend circling looking for choice parking spaces that may be fully occupied.

**Figure 53 SFPark Mobile App**



## Improve and Equalize Enforcement

In most cities that have implemented demand-responsive management strategies – strategies that include pricing in the highest demand locations – satisfaction has increased due in part to the decrease in the number of parking citations issued. When given the choice, most drivers will use the parking that best meets their need rather than risk a ticket by failing to pay or overstaying a time limit.

Even so, enforcement remains an important tool in parking management. At present, parking enforcement appears to be inadequately staffed to observe all regulated curbside areas throughout all hours regulations are in effect. Again, by consolidating parking operations and revenues into a single Parking Department, the department would have the ability to ensure the appropriate number of staff and appropriate hours of the day and days of the week to better manage the parking resource.

Metering has the added benefit of streamlining enforcement. Enforcing time limits requires that a parking enforcement officer observe a vehicle twice in order to determine that the vehicle has been in that location beyond the allowable period. Furthermore, the duration of parking can only be noted at the first point in time the officer witnesses the vehicle, thus vehicles may routinely overstay parking restrictions and still evade enforcement. Enforcement vehicles equip with license plate reader (LPR) technology can ease, but not eliminate this burden.

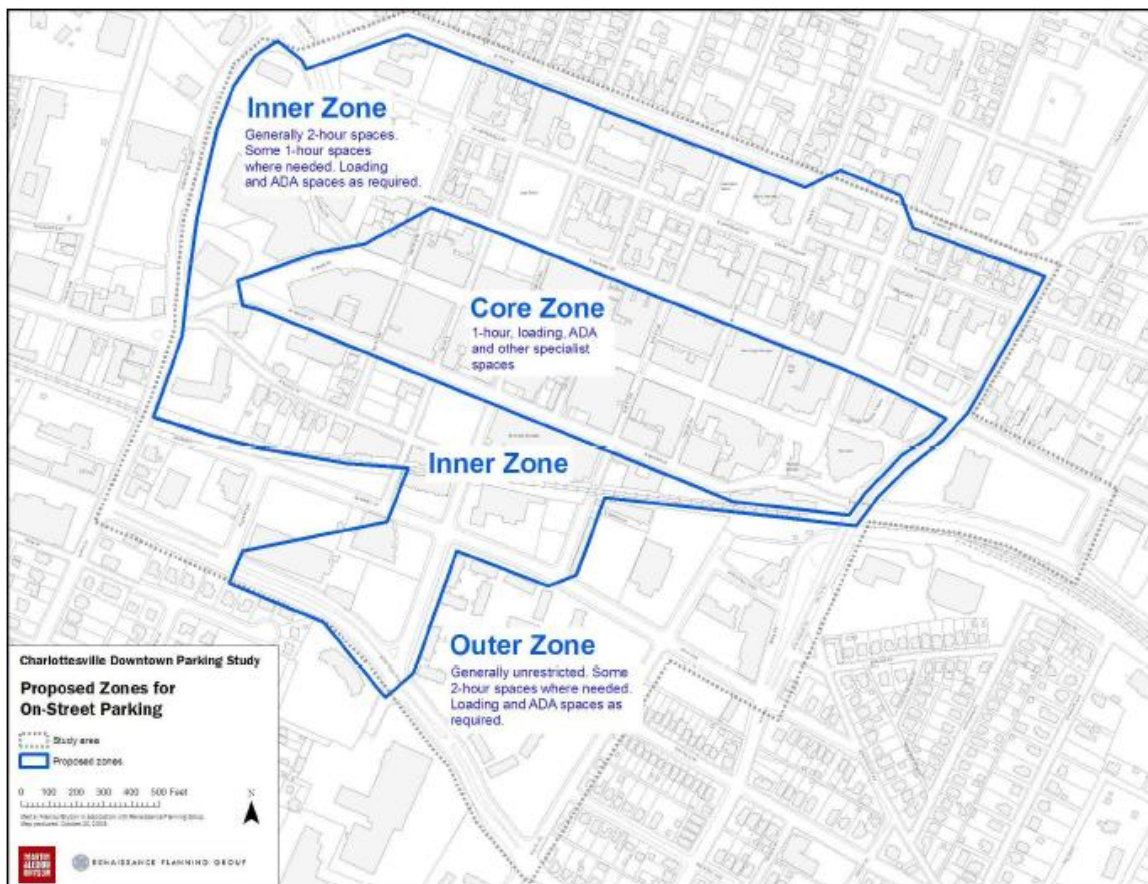


## Create parking benefit district(s).

Given the varied contexts and needs, separate districts should be established for the downtown, West Main Street, and University Corner areas. After covering parking program costs, parking revenues should be reinvested into alternative transportation options, information, promotions, and public improvement priorities identified by the stakeholders and residents of those districts. Parking benefit districts establish specific areas from where parking revenues are generated and into which these revenues are largely reinvested. Such districts often compliment, but need not require, business improvement districts.

## Zone-specific recommendations

Figure 54 Zone Definition (2008 Report)



### Core Zone:

- **Implement metered curbside parking and concurrently reduce off-street parking rates.** Metered curbside parking is recommended for the Core Zone. This should be combined with a commensurate reduction in parking fees at off-street parking facilities, particularly in the afternoon, evening, and weekend hours when surplus supply is observed.

- **Manage for short-term use, but relax time limit restrictions.** The Core Zone should be managed to favor short-term, transactional parking; however, with the introduction of metered parking, strict time limitations are not necessary. Short durations of parking should be possible at a nominal price (no more than \$1.00 per hour) with subsequent periods escalating thereafter.
- **Extend duration of regulatory period.** Demand in this zone typically extends beyond 6 p.m. on both weekdays and weekends. Regulatory periods should match periods of demand and extend to 8 p.m. on both weekdays and weekends.
- **Simplify signage.** Parking signage has become overly complex and confusing to drivers. The City should review signage to increase legibility and ease of use, particularly for visitors new to the area.

#### **Inner Zone:**

- **Maintain, but expand, time limit management of curbside spaces.** The Inner Zone generally exhibits lower levels of demand than the Core Zone. Some blocks of the Inner Zone may warrant meters to effectively manage them; however, it is recommended that the city begin metering in the compact area of the Core Zone before expanding into the Inner Zone. Time limits can help to effectively manage the curbside resources in this area. Time limits should be extended to introduce four-hour and perhaps even six-hour zones on some blocks.
- **Increase enforcement.** Time limit regulation of curbside spaces requires a greater intensity of parking staff to observe and enforce. Additional parking enforcement officers will be needed to properly manage this area if regulation is to primarily be accomplished through time limited parking.
- **Realign regulations.** Regulations should match observed demand and use of the spaces. This includes both the duration of time limits as well as the days and periods of regulation.

#### **Outer Zone**

- **Maintain, and optimize, unregulated supply.** The unregulated spaces in this zone are an important resource for workforce parking. Given that these spaces are presently free with unlimited parking durations, these spaces are generally oversubscribed at present. Management of these spaces should be combined with reformed permit and pricing systems in the municipal garages to enable some employees to take advantage of garage resources as well and relieve the artificial demand placed on these Outer Zone spaces.
- **Combine with a reformed garage permit program.** The Water Street garage, near to the Outer Zone, currently has excess but unused capacity despite a high and increasing subscription rate. This results from a pricing regime that encourages on-street parking for permit holders. Demand for garage parking should be balanced with demand for unregulated curbside spaces through programs that enable no or low cost to park on the upper decks of the facility or periodic parking passes (for example one free parking pass per week) for employees that typically take alternative commute modes, such as transit or walking, most other days of the week.

## OFFER VIABLE AND ATTRACTIVE COMMUTE AND ACCESS ALTERNATIVES

### **Establish a Transportation Demand Management Program and Transportation Management Association**

A Transportation Management Association (TMA) or Transportation Management Organization (TMO) should be created in concert with the establishment of the Parking Department and be a program of that department. A TMA can help to disseminate information about alternative commuting options, run events and campaigns to encourage workers to try alternative commutes, and develop tailored programs for both employers and employees that meet their needs. The TMA can work closely with the Visitor's Bureau to enhance the visitor experience as well.

TMA's provide an economy of scale and more consistent, pervasive, and impactful message and program compared to TDM programs operated by individual employers or residential buildings. TMA's have demonstrated the ability to positively and substantially increase the awareness and use of alternative commuting options, increase worker satisfaction while decreasing household transportation costs, and enhance the appeal and competitiveness of cities and their downtowns.

The TMA could be funded through parking revenue funds and the required participation of new development projects. TMA's are also eligible for federal transportation funding (granted through the regional planning body) and work closely with area transit providers. In Charlottesville, the TMA could and should be a partnership between the City, University and transit provider and support both populations and their needs.





## **Enable expanded/additional mobility options**

### **Remote Employee Parking**

Remote parking for employees would use available parking spaces in areas of Downtown where demand is lower and parking spaces may be underutilized. The location of the remote parking would be tied into the existing trolley service or provided with a separate shuttle service to employment centers in downtown. This approach would reduce long-term parking by employees from the in-demand spaces closer to Downtown and would also provide employees with either free or low-cost all-day parking.

To implement this approach, the City of Charlottesville would need to survey the availability of a City-owned remote parking facility and the cost to provide low or reduced cost parking there. Alternatively, the City could also work with a private parking lot operator to provide the parking spaces at reduced cost. This arrangement could be collectively managed through a BID or parking authority.

### **Provide Transit Benefits**

Cities such as Boulder, CO and Ann Arbor, MI have implemented universal passes (also known as U-Pass or EcoPass) for their downtown and university communities. These passes are provided to all downtown workers and students regardless of whether or not they are regular transit users. These passes eliminate the barrier to transit use as people do not need to determine the fee per ride or even the details of how to use the transit system. Pass holders simply present their pass and may take transit anywhere the system goes.

Although transit use is relatively low in Charlottesville, especially among downtown workers, such U-Pass programs can warm drivers up to transit use and eventually encourage a mode shift.

U-Passes are generally funded through a combination of funds including discounted transit fares, required participation by downtown employers, CMAQ resources, general revenue funds, parking proceeds, and student fees.

### **Increase Walking and Bicycling**

The majority of employees in downtown businesses commute less than three miles to work, which could be accommodated by walking or bicycling. The City of Charlottesville is expanding the number of bicycling racks and working with local businesses to provide secure bike parking where feasible. The proposed pedestrian and bicycle master plan for the city will increase bicycling facilities and comfort and safety for more concerned riders.

### **Carpool Benefits**

Finally, the city could consider establishing priority carpool parking spaces in the public lots. These would both be a benefit to employees who carpool into downtown by saving them time and a way to encourage more people to consider carpooling. These spaces would be pre-paid monthly spaces, but could be offered at half price for two person pools and free for three or more person pools.

## **MAINTAIN (AND MONITOR) CURRENT PARKING SUPPLY**

Better management of existing on and off street parking resources will significantly reduce the parking pressures and better match users to the resource best suited to their needs. Strong promotion of TDM efforts and continued enhancement of alternative travel options will serve Charlottesville well in maintaining its reputation and charm as an attractive, livable and sustainable city. But demand for parking will remain. As a small and growing city in a relatively rural region, access by automobile will continue to be an important mode of access. Current parking levels should be maintained, but continuously monitored and evaluated.

### **Maintain existing parking requirements for new development.**

With the elimination of the parking exempt zone, new developments will largely meet their own new parking demands; therefore future parking demand is not anticipated to outpace added supply. Similarly the current “in lieu” payment option should remain for those properties unable to provide parking on site or desiring to participate in a shared arrangement.

### **Strategically expand parking where opportunities exist.**

#### **Partner in parking replacement or enhancement.**

The city is growing. As development occurs the city will see a temporary, and in some cases permanent, reduction in the number of public or employee parking spaces in the downtown. The city should partner with private owners to optimize opportunities to replace this parking supply and where prudent, enhance it.

#### **Engage in shared parking arrangements.**

As was observed in 2008, there are surplus off-street parking spaces downtown, however many of these empty spaces are not available to the general public. Shared parking arrangements to make use of existing underutilized spaces can help address unmet parking demand. Shared parking arrangements are not uncommon in Virginia and widely practiced in places such as Arlington County.

#### **Participate in development.**

As new developments occur downtown, the city may wish to partner with developments to integrate new public parking spaces into development projects to replace lost parking or sensitively augment supply and better distributing parking options throughout the downtown. The need for additional supply should be judiciously monitored and can only be correctly evaluated after effective parking and demand management programs have been implemented.

## SPECIAL PROJECT AREA RECOMMENDATIONS

### Albemarle and Charlottesville Circuit and General District Courts

Four courts operate at Charlottesville's Historic Court Square: the Albemarle County Circuit and General District Courts and the City of Charlottesville Circuit and General District Courts.

Generally speaking, there are three distinct user groups for the Courts - each with unique needs:

- **Jurors:** The Circuit Courts use jurors for both criminal and civil matters, and annually summon 60-120 citizens for grand jury duty, which lasts at least six months.<sup>4</sup> Jury calls occur on Tuesdays and present the greatest strain on parking in the immediate vicinity of the courthouse. Jurors may stay from less than four to more than eight hours in a day. Often they may not leave to move their vehicle or feed a meter.
- **Defendants and legal counsel:** Like jurors, defendants and attorneys present more episodic demand patterns – coming downtown as needed to address Court concerns. These users may stay for shorter or longer durations, depending on the need and their visits may occur throughout the week.
- **Court staff:** Court employees are downtown on a routine basis, most according to a fairly regular schedule. Court staff have the same general needs and desires as other downtown employees.

There are approximately 928 parking spaces in the zone encompassing the courthouse: 208 on-street parking stalls, 247 private off-street parking spaces, and 473 off-street parking stalls in the Market Street garage. On-street parking regulations are classified as two-hour limit (117 spaces), one-hour limit (17), unrestricted (10), and other restrictions (64).

On an average (non jury call) weekday, 9AM to 5PM, the average utilization rate for all parking in the are, including on-street and public and private off-street is 67%. On-street usage is highest during the morning hours (9AM – 12PM), averaging 78%, with demand tapering off during the afternoon period (56% utilization). Use of the Market Street averages 70% during the workday and peaks at 87% roughly around 1PM. Private spaces in the vicinity exhibit significant unused capacity.

**Figure 55 Courthouse Parking Profile**

Parking Availability near Albemarle/Charlottesville Courthouse		
Classification	Parking Spaces	Weekday (9-5) Utilization Rate
On-street	208	66%
Private off-street	247	60%
Market Street garage	473	70%
Zone-wide	943	67%

Peak court days, however, have sizable and at times excessive demands on parking resources. The Market Street Garage commonly reaches, and occasionally exceeds, its practical capacity while on-street spaces are generally full – particularly in the morning period.

<sup>4</sup> The Virginia Circuit Court: <http://www.courts.state.va.us/courts/circuit/circuitinfo.pdf>

At present, jurors and others with business at the courts are generally directed to use the Market Street Garage. Users are provided with parking validation to offset any parking cost. Limited information and few incentives are provided to encourage and enable use of other parking resources or alternative means of access. The Courts rely exclusively on the public curbside and off street facilities and do not, at present, have any private or reserved parking arrangements.

To ensure reliable and efficient access to support and sustain Court activities, and mitigate the impact of Court-associated demands on the general downtown, a wider array of solutions must be applied. These solutions include better distributing parking demand among the range of resources in the downtown; incentives to use alternative modes of access by those for whom viable options exist; and securing additional parking options for Court use on peak days.

### **Parking Recommendations**

- **Provide Court users with information on all parking resources:** Juror packets currently provide information for accessing the Market Street garage, the closest public parking facility to the Courts. The Courts could better serve their users by providing additional information on other parking options to provide more options and choices.
- **Level the playing field among parking facilities:** Provide a set allowance for parking compensation and information on the varied parking options and their rates in the downtown and permit court users to make independent choices based on their own priorities and preferences. Compensation should be based on the lowest cost, viable parking option. The Market Street Garage is priced slightly higher than the Water Street Garage and on street spaces should be priced somewhat higher yet. With adequate information, users will chose for themselves the right balance for them between cost and convenience. This will help to distribute demand more evenly across all resources.
- **Accommodate use of curbside spaces by court users:** Smart metering of curbside spaces in the Government Zone can support court uses as well. Smart meters enable variable pricing of curbside spaces according to levels of demand. On days of known high court demand, curbside parking rates could be raised. This is a common practice in areas with other heavy demand generators like arenas or stadiums. Smart meters and/or pay-by-phone technology would enable court users to apply their parking compensation (via a designated code or distributed key or card) to their metered parking space. While curbside space would not be reserved for court use, appropriate pricing would ensure availability. Replacing time limits with meters enable users to pay for what they need.
- **Pursue shared parking arrangements:** There are a number of public and private lots in the downtown that have unused or underused capacity. Shared parking agreements for use on peak court days could satisfy peak demand. Typical demand can be absorbed by the existing system, provided better management strategies are implemented. Although the Court complex is in an intensely developed area, there are some nearby parking assets that provide opportunity, such as with local area houses of worship, such as First United Methodist. Other options exist slightly further from the court complex and accessible through a very walkable environment, including: the Omni Hotel, the Jefferson School, and lots adjacent to the County Administrative Building. These shared lots should be used by court staff on peak days, reserving the traditional parking resources for jurors less familiar with the downtown.
- **Courthouse shuttle:** In addition to, or in lieu of shared parking arrangements within walking distance, the Courts could partner with retail properties further from the core downtown for shared parking and provide shuttle services for employees. This is an

- option utilized elsewhere, for the provision of public remote parking, by cities such as Ann Arbor, MI.
- **Develop a robust transportation demand management program.** At present, jurors are provided validation for free parking but no other incentives for accessing the courts via any other mode. Staff too have limited incentives and benefits for commuting via non-drive modes. Jurors should be provided a free bus pass for the day(s) of their service as well as information on transit routes and schedules, regional ride sharing programs and how they work, a “Guaranteed Ride Home” code for use on their days of service, and other similar incentives. A specially tailored TDM program should be crafted for court staff as well, with potentially extra incentives to commute via non-auto modes on peak court days.
  - **Secure bicycle parking:** Although a relative handful of employees or jurors may bike to the facility, they still represent an important and valued constituency. Attractive, visible and secure bicycle facilities should be provided to accommodate daily and long-term bicycle parking for court employees and visitors to encourage this access mode.

Court parking demands can be successfully accommodated through a rich package that combines the benefits of parking management and commute incentives and services.

## Charlottesville City Market

The Charlottesville City Market was established in 1973, and since 1993 has operated at the municipally-owned parking lot located downtown at Water Street and First Street. The market operates every Saturday, April through December, from 7 a.m. to noon (with parking reserved for vendors from 5 a.m. to 2 p.m.). Featuring hundreds of local vendors, the City Market attracts thousands of customers, is an economic generator for the city and downtown businesses, and has emerged as a regional hub for artisans and craftsmen.<sup>5</sup>

In June of 2014, Charlottesville’s City Council accepted the Market Plaza proposal, which will replace and redevelop the existing parking lot at Water and First Streets, and in December 2014 the permit was formally approved. As currently planned, the nine-story, multi-use Market Plaza will contain 18,000 square feet of retail space, 58,000 square feet of commercial space, 67 apartment units, and a dedicated outdoor plaza for the City Market. 102 of the existing 105 public parking spaces will be restored. An additional 159 parking spaces will be provided for office workers and site residents. Construction is expected to begin in late 2015, and will continue for three years. The City Market is temporarily operating in the adjacent parking lot, at 100 Water Street (162 parking spaces) until the Market Plaza development is completed.

The existing parking lot, which the Market Plaza development will replace, is heavily utilized: average parking occupancy is 82%. On Friday night, Saturday morning, and Saturday night, the lot’s utilization rate can reach 100% or greater (as a result of illegally parked cars). Temporary removal of these 105 parking spaces will put further pressure on downtown parking.

---

<sup>5</sup> <http://thevirginiaadvocate.com/2013/09/24/charlottesville-farmers-market-remains-fresh-at-40/>

To mitigate temporary parking pressures and future parking demands associated with visitors to the City Market, the city and project developers should:

- **Establish, fund and heavily promote TDM incentives** prior to and during construction. As construction will disrupt traditional commuting patterns and necessitate the consideration of alternatives, this is a good time to influence new commuting habits. As part of the TDM program, consult with local car share providers (Zipcar operates on the UVA campus) about providing one or more vehicles near the site and waived membership fees for some initial period. Designate reserved carpool spaces on-street or in the Water Street facility. Actively explore the viability of arranging a vanpool for displaced parking commuters.
- **Provide validated parking** during construction to market patrons. Parking is generally available on market days in the Water Street parking garage. Weekday commuter patrons should be provided TDM benefits but will need to make their own alternate parking arrangements if continuing to drive alone is a necessity for them.
- **Require implementation of a TDM plan** for the new development. Viable strategies include decoupling parking from occupant leases or sales, shared parking (particularly of office parking supply), provision of adequate and inviting bicycle parking and bicycling amenities, free and preferred space for carpools, and/or reserved surface parking space for car share provider(s), among others.
- **Promote shared parking.** Initially require off-street office parking to be free during market hours. Implement gradual pricing if demand reaches practical capacity.